

Heath's Counterfeit Detectors: An Extraordinarily Successful Comedy of Errors

by Eric P. Newman

Introduction

A highlight in American numismatic literature is the myriad of editions of Laban Heath's counterfeit detectors. These books gained great popularity by the simple technique of complimenting the intelligence and ability of members of the public to recognize counterfeit paper money and by the appeal of spectacular illustrations. The series of editions from 1864 through 1889 carried a transition of text and a development of pictorial content by a masterful huckster and a skilled political maneuverer. He was the first person to promote a numismatic book into a best seller.

Heath's patented and creative ideas enabled him to obtain permission to use many illustrations from official sources. His political influence was so strong he had private bank note companies and the United States Treasury's Printing Bureau (later the Bureau of Engraving and Printing) doing work for his personal benefit, and also at least 53 members of the U.S. Congress recommending his publications. Heath was almost deprived of a source for currency illustrations by the interpretation of an 1869 law passed to stop freeloaders from using the government's engraving and printing facilities. He was almost bankrupted by sabotage arising in the Treasury Department because of the dismissal of the Chief of the U.S. Treasury Printing Bureau.

Heath's two sizes of editions were bound in a rainbow of beautiful colors. They are replete with errors and confusion so that many mistakes continued uncorrected year after year. To study the intricacies of a numismatic book which must have sold about 100,000 copies in various editions compares in fascination to the study of the paper money the book describes.

Predecessors of Heath

The first presently known evidence of Heath being connected with counterfeit detection came from *The United States Bank Note Detector at Sight, the Only Infal-liable System Detecting Counterfeit & Altered Bank Bills* as taught by A. S. Gear. That pamphlet was compiled and published in 1860 by J. W. Whittemore of Ashland, Massachusetts, who, according to that pamphlet, was a teacher of counterfeit currency detection. It was copyrighted by Gear & Fiske in the U.S. District Court in New Hampshire in 1859. On some of these pamphlets there was pasted over the publisher's name at the bottom of the front of the yellow paper wrapper a matching paper label reading "Portland, Me./For sale by Laban Heath/For \$1.00." Pasted over the ordering instructions in the center of the back of the yellow wrapper is another paper label reading

Finding Key

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"Persons desirous of obtaining this work can do so by enclosing one dollar by mail to LABAN HEATH, Portland, Me."¹

The Whittemore pamphlet was pocket size and 25 pages long. It contained a preface followed by 9 numbered rules explaining the engraving and printing process used in the preparation of state bank notes. There are 16 crude wood cuts comparing genuine and counterfeit portions of bank notes. It states that there is an "exorbitant amount of spurious money now in circulation." It contains explanations and representations of the manner in which bills are engraved and altered. It is critical of the effectiveness of *Thompson's Bank Note Reporter* (N.Y. 1842 et seq.) which was indicated to be the only available source which the public has for counterfeit bill information. There are 16 testimonials dated from February 16, 1859 onward written by New Hampshire and Massachusetts bank officials and other money handlers. It contains nine extracts from the New Hampshire and Massachusetts press.

It is obvious that Heath adopted many of his concepts and expressions for his subsequent publications from the Whittemore publication. Its use of the words "Infallible" and "At Sight" are reincorporated in Heath's future titles. The description of the methods of preparation of bank notes was revised and used by Heath. The 9 rules set out by Whittemore were reworked and expanded into 11 rules when Heath began. The headings for the first 4 rules in both Whittemore and the subsequent work by Heath are bracketed as "inimitable" in Whittemore and as "cannot be successfully imitated" in Heath. The pattern of testimonials was followed by Heath as well as the use of favorable excerpts from the press.

Just as ideas for the structure of Heath's publications on counterfeit detection came from Whittemore, those of Whittemore, in turn, had followed many elements from prior publications, such as H.C. Foote's *Universal Counterfeit and Altered Bank Note Detector at Sight* (New York 1848 et seq.) which contained similar rules described as "infallible when imitated." Waterman Ormsby's graphic engraving art publication in 1852 was more for banks than for public usage and was very complex in its explanatory detail. Wheeler M. Gillet had written *The Infallible Bank Note Expositor and Detector* (Ohio, 1854) which included instructions and rules, logically complaining that merely listing the existence of counterfeit notes was insufficient. George M. Peyton wrote *How to Detect Counterfeit Bank Notes, or an Illustrated Treatise on the Detection of Counterfeit, Altered, and Spurious Bank Notes* (N.Y. 1856) with 45 pages of text and 4 steel plate impressions of vignettes, designs, counters, and lettering prepared by the firm of Rawdon Wright Hatch and Edson with copious explanation of the detection of counterfeits.² An 1861

edition of Peyton expanded it into a 54-page third edition with SIXTH THOUSAND on the title page. Harvey Gridley Easton taught counterfeit detection as a course in Eastman's Commercial Colleges with the use of his *Eastman's Treatise on Counterfeit Altered and Spurious Bank Notes with Unerring Rules for the Detection of Frauds in the Same* (St. Louis 1858 and 1859) and had his data expanded by Edwin J. Wilber and E. P. Eastman in 1865 with 4 thick paper currency plates, 3 of which contain genuine designs, counters, lettering and panels prepared by the New York Bank Note Company and 1 of which contains both genuine and counterfeit designs, counters, and lettering by W. L. Ormsby. There were many other bank note publications which devoted portions of their content to counterfeit detection.

Thus in June 1864 when Heath published his first counterfeit detector, it seemed that he had produced nothing unusual and had extensive competition. He had made a successful effort to obtain 8 impressions from combination plates of state bank note vignettes, designs, counters, and lettering from the American Bank Note Company. But events had almost made his project obsolete. The War between the States had forced the Union to introduce Demand Notes, United States Notes, and National Currency (National Bank Notes). The issue of fractional or postage currency had also commenced and some already had been counterfeited, a fact which Heath mentioned in his first edition.

Heath's Introduction pointed out that the new National Currency would probably take the place of all other issues except United States Notes. He politely states that "greenbacks" are rarely counterfeited or altered. He states that the new National Currency is supposed by some to be secure against counterfeiting so that no care will be required. Then he firmly states "such, however, is not the case." He points out that a counterfeit of a United States Note can be passed in any geographical area and that if a counterfeit note of one National Bank is discovered and publicized, all the counterfeiter needs to do is to change the name of the bank by altering a word or two on the counterfeit plate and thus create a counterfeit on another national bank. He skillfully used an effective fear technique.

None of the issues of Heath's first edition had an illustration of any portion of any federally-sponsored paper money and it wasn't until two years later (1866) that federal designs were first included. At least his illustrations of state bank note designs were prepared by the skilled artisans of the American Bank Note Company which was participating in the preparation of the federally-sponsored paper money.

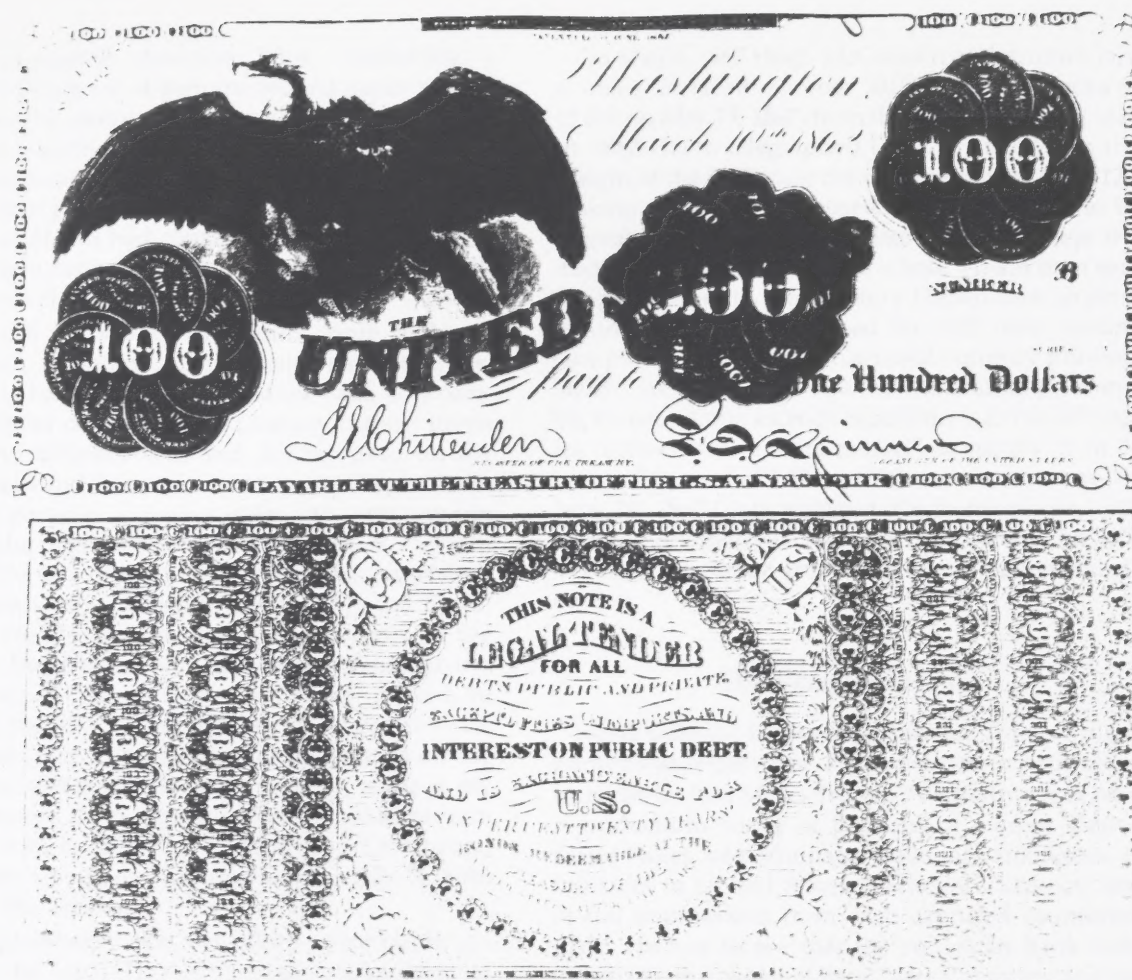
His fertile brain took advantage of an opportunity after a few of the first edition of his books were sold.



Laban Heath's first bank note style advertising sheet was engraved and printed by the American Bank Note Company and contained in the center of the lower part a 5 counter on each side of a farm scene. After its use in some Pocket counterfeit detector editions, it was overprinted with "Plate 15" by letter press. It featured his counterfeit detection teaching.



Laban Heath's second bank note style advertising sheet was a revision of his first sheet by changing the center of the lower part so as to eliminate the design in that area and to add advertising for his detectors. "Plate 15" was originally present on early impressions but was eliminated by modification of the engraved plate for subsequent impressions.



Face and back impression from captured counterfeit plates of the 1862 first issue \$100 United States Notes dated March 10, 1862, printed by the Bureau of Engraving and Printing of the U.S. Treasury Department for Laban Heath and used in some of his Banking House counterfeit detectors.

A captured counterfeit plate of a \$5 Bank of Orleans, New York was available and he arranged for impressions on bank note paper to be made from that plate. Such an impression was too large to insert in his book normally, so in his FOURTH THOUSAND and thereafter he folded it once and tipped it in sideways, adding a page 27 to describe it. He also prepared and inserted a bank note style advertising sheet on similar paper promoting his expertise as a teacher of counterfeit detection. His sales skyrocketed to about 25,000 copies of the first edition. No other detector publication had illustrated a print directly made from a counterfeit plate theretofore, even though some had included wood cuts of counterfeits to point out differences between the counterfeit and the genuine. Heath had seized upon an idea he would later rely and build upon.

Heath's statement, in his second edition Introduction, that he sold 25,000 copies of his first edition may have been somewhat of a puff since SEVENTEENTH THOUSAND was the highest printed number on the title page of the first edition. That would make any

exaggeration a modest one. It is possible, however, that there could have been very little exaggeration as SEVENTEENTH THOUSAND (a common variety) could have been used for a much longer run, as changing the book production count on the title page was neglected from time to time in prior runs (see Variety Table).

That the book sales of his first edition were so outstandingly successful is a tribute to Heath's astuteness in convincing the public that it was an opportunity they couldn't refuse. He satisfied a few bank officers and the press that his detector book was useful, having those officers sign recommendations which he added to the book, and by so doing convinced money handlers that his publication was essential to their welfare. His formula was set. Then the problem was how to promote it and sell it extensively.

Federal Permission

Illustrations of federally-sponsored paper money would naturally have been a major problem to obtain

for a counterfeit detection book. Publishing a standard-size print of genuine federal paper money would not be permitted because the book might be purchased for the purpose of removing and passing the paper money impression. Publishing a vignette or any other portion from federally-sponsored paper money, as Heath had already done with state bank notes, might not be dangerous, but would require federal approval.

On April 4, 1866 Laban Heath wrote to Hugh McCulloch, Secretary of the Treasury, requesting permission to have the Treasury and the bank note companies under contract to the Treasury furnish prints from "the different dies and devices used on the Greenbacks and National Currency, together with the prints of portraits, vignettes, titles, etc., employed in making the paper money issued by the U.S. Government." The use of thick plate paper was suggested. The request was referred to Spencer Morton Clark, chief of the Printing Bureau, First Division, of the Treasury Department who immediately objected and said it would aid counterfeiters. Heath replied on April 13, 1866 that "a counterfeiter would prefer a nice new Bank Note in preference to my book as on the note he would get all the work together while in my book it would be in separate parts." A small portion of each note is all Heath wanted. The Continental Bank Note Company also objected in a July 14, 1866 letter to the Treasury.³

On September 3, 1866 McCulloch wrote Heath approving the idea. This letter was so important to Heath that he had a large copy of most of it engraved for the Banking House editions and a small copy of most of it engraved for the Pocket editions, and inserting it printed on tissue, in the beginning of many editions of his books. McCulloch, who was very helpful to Heath, promptly asked Heath to designate which cuts (impressions) Heath desired and the number of each. McCulloch also wrote that the bank note companies would print them at Heath's expense. On September 4, 1866 McCulloch authorized the Continental Bank Note Company to print such designs, but no designs of an entire note, and to mutilate them slightly. Heath promptly ordered 20,000 prints from the right vignette on the face of the \$5 National Currency Note, the right-half of the back of the same note, the vignette on the face of the \$500 National Currency Note, and the left-half of the back of that same note. He added an order for fractional currency imprints which was approved January 15, 1867. He also provided that for the Banking House size Clark was authorized to mutilate the head of Hamilton and the 50 counter without spoiling them and to leave the fractional currency uncut. On May 2, 1867 Heath ordered 4,000 prints from the captured counterfeit \$100 First National Bank of Boston plates for his Banking House book.

On May 6, 1867 Hugh McCulloch authorized Clark to make for Heath another 20,000 prints (reduced to 12,000 on May 15, 1867) from the same plates. On May 10, 1867 Heath telegraphed Clark to engrave on the margin of the \$100 plate the designation of "Plate 12," making it the only captured counterfeit plate to be identified by an engraved plate number, except the fractional currency plate as a whole. Heath then sent the plate paper to the Treasury Department to print the impressions on and had the \$100 note printing take precedence over the fractional currency printing. Heath, on June 7, 1867, said the demand for the Banking House edition exceeds expectations as the 400 copies received are "a mere morsel" to supply 20 or 30 agents. He needed 3000 to 4000 more at that time. By June 20, 1867 Clark shipped 500 frontispieces, 1000 of the counterfeit \$100 National Bank notes, and 3000 fractional currency prints for the Banking House edition.

Political Influence

Heath's ability to obtain permission from so many parties was remarkable. He had to obtain permission from the United States Treasury Department to have reproductions made of portions of current United States Notes, of portions of National Bank Notes, of full faces of United States Fractional Currency, and of full impressions from each captured counterfeit plate. He had to see that the American Bank Note Company, the National Bank Note Company and the Continental Bank Note Company could be sufficiently urged to cooperate as those institutions produced and had possession of many of the plates from which they printed currency under government contract.

Heath needed the cooperation of the Printing Bureau of the Treasury and of the Secret Service for his undertaking. His project was to deter counterfeiting and passing counterfeit currency by educating the public on detection. A meritorious cause of that type might have been enough to secure the help of others to reach his goal even though a personal profit from its success was sought.

Political influence, however, would speed the undertaking and give Heath more assurance that it would not bog down or be blocked after it had commenced. The politician on whom Heath's success depended seems to have been Nehemiah George Ordway. In the Banking House editions of Heath's books, Ordway's name leads the parade of many important political figures recommending Heath's books. Ordway was presented with a special copy of Heath's second Banking House edition with Ordway's name stamped in gold lettering on an elaborate cover. Ordway cooperated with Heath for over 10 years on detector matters.

500

Office of LABAN HEATH & CO.,
PUBLISHERS OF THE
U. S. GOVERNMENT BOND,
Treasury and National Bank Note Detectors,
AND MANUFACTURERS OF
HEATH'S PATENT MICRO-TELESCOPIC GLASS.
30 HANOVER STREET.

Boston, May 25. 1871

Hon. N. G. Ordway,
Washington,
D. C.

Dear Sir

In reply to yours
of the 21st. we have to say we shall probably
require the following impressions to keep our stock
up the next twelve months, viz;

3000 for Large Book } \$100. National Bank Note
5400 " Small do. }

5000 Large Book } \$20. National Bank Note
5000 Small do. }

3800 Large Book } \$10. National Bank Note
5800 Small do. }

3100 Large Book \$100. Treasury Note, "Greenback"

4600 Large Book \$5. Treasury Note, "Greenback"

Have the margin for the Large Book the same top
& bottom, with 5/8 of an inch margin all around for
the small book.

Very Respectfully,
Laban Heath & Co.

Letter dated May 25, 1871 from Laban Heath & Co. of Boston to Nehemiah G. Ordway (Sergeant-at-Arms of the U.S. House of Representatives) in Washington, outlining one year's estimated additional requirements for impressions from captured counterfeit plates for Heath's two sizes of detectors. The letter also shows Ordway's liaison between Heath and the Bureau of Engraving and Printing of the Treasury Department which printed the impressions.

A few details of Ordway's life and reputation are indicative of his power and character. He was born November 10, 1828 in Warner, Merrimack County, New Hampshire, the same county in which Heath was born and raised. Ordway was elected sergeant-at-arms for the New Hampshire legislature in 1855 and soon became sheriff of Merrimack County. He was chosen to be chairman of the Republican State Committee for the presidential campaign of 1860 which through Lincoln's victory gave him national political status. He was commissioned in 1861 as a colonel by the U.S. Army to recruit troops. In 1863 he was selected as Sergeant-at-Arms of the U.S. House of Representatives and held that prominent post for 12 years. He supervised construction projects for the government while so serving and also dealt in real estate privately at the same time. It was during his tenure as Sergeant-at-Arms that he and Heath were working together.

Ordway engaged in New Hampshire politics after 1875 and then received an appointment from President Rutherford B. Hayes in 1880 to become governor of the Dakota Territory. As such, he was one of those responsible for founding Bismarck, the present capital of North Dakota, which he felt would assist him to become United States Senator from North Dakota when its statehood was granted. A master of the use of patronage, he was also accused of graft of various kinds and was described as "an excellent example of the cynical post-Civil War politicians who brought the political morality of the country to such a low level." He died in 1907.⁴

It is not surprising that Heath and Ordway could be politically and financially intertwined as to the Heath publications.

Treasury Department Printing

A specially engraved frontispiece for the second Banking House and Counting Room edition was a masterpiece of flattery for the U.S. Treasury officials whose cooperation was needed to prepare Heath's publications. This 1866 engraving featured seven portraits surrounding an American eagle and an American flag with a view of the U.S. Treasury building below. The top portrait was George Washington and the two next below were the Union Civil War heroes, General Ulysses S. Grant and General William T. Sherman. On the third level were statesman Stephen A. Douglas (died 1861) and Secretary of the Treasury Hugh McCulloch. The bottom pair were Spencer M. Clark, Chief of the Printing Bureau of the Treasury, and a profile of Francis E. Spinner, Treasurer of the United States. The Treasury officials were thus placed in rather exalted companionship on this engraving.

Heath wrote Clark on February 11, 1867 for 500 en-

gravings of "your likeness" for use in the detectors, but apparently Clark ignored this proposal because his picture on the frontispiece and on the fractional currency illustration was enough. At Heath's expense the frontispiece was engraved by Treasury engravers and was printed by the same dry process used for fractional currency by the Printing Bureau of the Treasury. Clark, in an April 4, 1867 letter to Heath, assured him that "in the present state of the art it can be thus done nowhere else in the world." Clark explained that the dry process gives a clearer, sharper and more uniform impression than wet printing and always resulted in the same size print. In the wet printing process he explains that there is no certainty that currency will have the same dimensions as other currency printed at the same time from the same plate because wetting and drying causes alternate expanding and shrinking—that in National Currency two notes from the same plate might vary as much as one-half inch in length. Clark hoped that the dry printing process could be applied to all government currency so that the public could also judge genuineness by size as was done with respect to coins. This attitude was not appealing to the bank note companies which then used the wet process for the work they did for the government.

The Treasury Department invoiced Heath 2½ cents for each dry process print of the frontispiece after Heath had paid \$63.97 for preparing an 11½" by 7½" plate.

When the government used plates to print impressions of currency or parts of currency for Heath's publications, printing was not done from original plates. The designs or partial designs were duplicated onto new plates by the roller transfer process. In this way, damage to the original plates by wear or handling was avoided. Evidence of this procedure can be drawn from an invoice dated April 3, 1867 in which Heath was charged for the Pocket edition the sum of \$37.23 by the Printing Bureau of the Treasury for preparing a 5 subject fractional currency steel transfer plate, size 9" by 10", including hardening and cleaning the 50-cent counterfeit plate used in making the transfer. There was a charge of only \$27.80 for a similar plate, 9" by 11¼" for the Banking House edition because the hardened counterfeit plate had already been prepared for transfer. The printing from the fractional currency plates cost Heath 1 cent each for the Pocket edition and 1¼ cents for the Banking House edition.

The use of the word "plate" may have several different meanings in describing a part of a book or a piece of equipment used in the printing process. It may mean the original metal or wood plate cut directly with engraving tools. It may mean the result of a transfer by the roller transfer process from one steel plate to another steel plate. It may mean a master



Engraved and Printed at the Treasury Department

Heath's frontispiece for his Banking House and Counting Room editions flattered the Treasury officials, whose cooperation he needed, by portraying them in a group with popular national heroes.



Combined segments from the backs of 4 National Bank Notes printed by the American Bank Note Company for Heath from a plate produced by a transfer roller from genuine currency plates. The counters show Heath's patented pie-shaped mutilation cut onto the plate.

vignette decoration, counter, lettering or other engraved element to be combined by roller transfer to form a larger steel plate or to form a partially completed combination steel plate which will be completed by hand engraving or cutting. It may mean the completed combination steel plate. As a printed item, it is also the printing on paper from any of the foregoing and is usually on a better quality paper than the book in which it is customarily inserted.

Heath's Patents

Laban Heath received a United States patent #66,337 on July 2, 1867 for inventing a means to mutilate a transfer plate made from a genuine currency plate so that impressions made from the mutilated plate could be compared with circulating currency for detection of counterfeits.⁵ His method did not affect the original genuine plate which could be retained in its unblemished form. Only the transfer plate would be mutilated by engraving a series of lines across a part of it. The lines shown in his patent drawings formed a pie-shaped area which covered only a small part of the design. The portion which remained unmutilated was sufficient for comparison purposes. In the event a vignette could be partially cut away, the same purpose would be served without a mutilation. In each situation the danger of an improper use was adequately avoided. The mutilation invention was first used in Heath detectors in 1866 when the second Pocket edition and the second Banking House edition appeared.

When the patent was issued, Heath featured it on the covers of his books until 1877. The date of the granting of the patent was improperly imprinted as July 12, 1867, instead of July 2, 1867, on most of the

covers of his books through early carelessness.

When counterfeit plates were used to print impressions, no mutilation was necessary. In the case of genuine fractional currency, only the faces were printed and they were left unblemished.

Heath had earlier obtained a magnifying glass-telescope patent #54542 on May 8, 1866, which he advertised and illustrated extensively in his detectors for examining currency. On November 30, 1877 he received patent #198,542 for a magnifying glass stand which enabled better lens adjustment for examining currency. He also advertised and illustrated these products in the later editions of his detectors.

In Heath's advertising circular for the second Pocket edition of his detector, he also features his Combination Micro Telescopic Glass as being patented on May 18, 1866. Heath inadvertently added 10 days to that date, establishing a precedent for the very same 10-day error which he made continuously with respect to his currency mutilation patent date.

No First Banking House Edition

There seems to be no doubt that Heath did not publish a first edition of his large-size "Banking House and Counting Room Edition," which was similar to his second edition of that size. There has not been located any Banking House edition copyrighted prior to 1866, or without any date. Heath himself construed his Pocket Edition to be his first edition for both his Pocket size and his Banking House size publications. As to historical background, he states on page 4 of the Introduction of all of his second Pocket size editions and second Banking House size editions, "consequently, in June 1864 I published the first edition

TO THE COMMISSIONER OF PATENTS

THE PETITION OF

Laban Heath

of Boston in the County of Suffolk
 and State of Massachusetts respectfully represents:

That your petitioner has invented an improvement
in the art of detecting counterfeit bank
notes

which I verily believe has not been known or used prior to the invention
 thereof by your petitioner. I therefore pray that Letters Patent of the
 United States may be granted to me therefor, vesting in me
 and my legal representatives, the exclusive right to the same upon the term
 and conditions expressed in the Act of Congress in that case made and provided:
I having paid fifteen dollars into the Treasury, and complied with the
 other provisions of said act.

And I hereby constitute and appoint D. P. HOLLOWAY & Co., of
 Washington City, D. C., my lawful Attorneys and Agents to alter and modify
 the specifications and drawings as they may deem expedient, and to receive and transmit the
 Patent when granted.

Signed at Washington this Sixteenth day of
May 1865

Countersigned by the Assignees.

Laban Heath



The May 16, 1867 application of Laban Heath for a patent on an improvement in the art of detecting counterfeit bank notes by publishing for comparison portions of genuine bank notes slightly mutilated. The patent was granted on July 2, 1867.

of *Heath's Counterfeit Detector*." This was not specific as to size, but in the third (copyrighted in 1870) and fourth (copyrighted in 1873) Banking House size editions he clarifies the matter in their Introductions as follows:

I then issued my first edition of Government work, known as the "Pocket Edition" of "Heath's Infallible Counterfeit Detector at Sight." . . .

Finding the public as well pleased with the Pocket Edition, and desirous of obtaining all the information that could be furnished with the facilities at my command, I issued the "Banking and Counting House Edition," containing about fifty of the most beautiful Government devices, including "vignettes," "dies," etc.

It is clear that if he had issued a first edition of the Banking House size he would have mentioned it and not mentioned only the first edition of the Pocket size.

Deliberate Misquotation

There is a deliberate misquotation in both the second Banking House edition and the second Pocket edition. Each has its own separate introduction which is followed by what purports to be the text of "Introduction to (the) First Edition," but the original content of that text was changed for Heath's convenience. All varieties of the first Pocket edition have 11 sections listed in the Introduction, but when the "Introduction to First Edition" is included in the second Pocket edition, the number of sections listed in that Introduction is increased from 11 to 12, most sections being renumbered and 2 being renamed.

The second Banking House edition had no first edition of its size or character and thus was riding on the coattails of the first Pocket edition for prestige purposes. The second Banking House edition lists 11 sections in its "Introduction to the First Edition," 2 of which have different names from those in the first Pocket edition, 7 of which are renumbered, 2 are omitted, and 2 newly named sections are added. The restated "Introduction to (the) First Edition" refers to the book as a "standard" guide, an expression which the original first edition did not ever use. In addition to those changes, the last paragraph before the list of sections was omitted in each second edition when reprinting the "Introduction to (the) First Edition." There are other minor changes also.

A possible reason for this deception was that there was no table of contents in either the second Banking House edition or the second Pocket edition and that the so-called "Introduction to (the) First Edition" could be made to serve such a purpose. The elimination in the restatement of one paragraph from the first Pocket edition wording actually saved one printed page and thus was an economic shortcut. Perhaps the

publisher thought that anyone buying the second edition of either size would never know the exact content of the "Introduction to (the) First Edition" and that a few changes in carrying it forward were harmless and would be better promotion for the sale of the book. Heath wanted to emphasize that it was a second edition, but tried to "improve" the first edition Introduction *nunc pro tunc*.

Vive La Difference

To make matters difficult for the bibliographer, Heath's second Banking House edition differed extensively from his second Pocket edition. This was primarily because the former contained only designs from federal currency and in the latter there was a combination of designs from state bank notes as well as federal currency. This was also true of the third edition of each size.

Apparently Heath had purchased a large quantity of impressions of state bank note designs from the American Bank Note Company and determined to overprint new plate numbers on some of them. Even though he continued to use some state bank note designs in his second and third Pocket editions, this does not explain his having the plate numbers on some of the state bank note design plates modified directly on the plate or having new plates made without a plate number and adding the changed plate number to them. The other possibility is that he had so many pages of printed text on hand from the first Pocket edition that he had to tie the plates into that text if he wanted to use up some of those pages in his second edition. To solve this problem by logic at this time seems illogical.

Naturally the Banking House editions priced at \$5 and the Pocket editions originally priced at \$1.50, rising to \$4 and settling back to \$3, were prepared for a different customer. Thus the comparison of the same edition of the Banking House size to the same edition of the Pocket size serves little purpose as there are too many differences. An interesting example is the fact that the 50-cent fractional currency counterfeit illustration in Banking House editions is always below the genuine 50-cent piece, while in the Pocket edition the order is reversed. The text is therefore different in each size edition to explain this. The number of impressions from captured counterfeit plates never exceeds 3 in the Pocket editions, while it runs to 5 in the Banking House editions. Some designs had one plate number engraved on them for the Banking House size and another plate number engraved on them for the Pocket size. Yet many of the same ideas are evident in the same edition of each size. The copyright dates of 1866, 1870, 1873 and 1877 were common to both sizes.

However, the second Pocket edition and the second Banking House edition each carried identical titles, namely HEATH'S GREATLY IMPROVED AND ENLARGED INFALLIBLE GOVERNMENT COUNTERFEIT DETECTOR AT SIGHT. In a circular to advertise his second Pocket edition in advance of its publication, Heath, after mentioning that there were "organized bands of counterfeiters," stated that the title would be HEATH'S NEW GOVERNMENT COUNTERFEIT DETECTOR AT SIGHT. The word NEW was never actually used in his titles and the words GREATLY IMPROVED AND ENLARGED were substituted instead, as well as the word INFALLIBLE being retained from the first Pocket edition. Heath apparently felt that, in his titles, the adjusted wording along with the first use of the word GOVERNMENT would have greater sales appeal.

A Confusing Law

Congress customarily passed appropriation bills covering expenditures for the different functions of the government. On March 3, 1869 the Fortieth Congress at Session III passed a long and detailed appropriation bill. Paragraph 6 of the 123rd chapter of that law read as follows:

For necessary expenses in carrying into effect the several acts of Congress, authorizing loans and the issue of treasury notes, four hundred thousand dollars: Provided, That no work shall be done in the engraving and printing bureau for private parties.

It is no wonder that most numismatic researchers were uninformed about this law heretofore.⁶

The reason for the prohibition apparently had little to do with what Heath had ordered in the way of impressions from currency plates or parts of them. Those with political influence had been having invitations to their parties engraved by the Bureau, as well as having their portraits engraved by Bureau artists. Then the Bureau would be asked to make prints. Apparently there was no attempt to pay the government for this unofficial work and as such it was an increasing abuse. The law was passed to insulate the Bureau from politicians and other influential people.

This law is referred to by Heath on page 3 of *The American Bond Detector* but not in any of Heath's other books (except by a handwritten insert in one variety of the third Pocket edition). Heath had always paid for all of the work he ordered from the Bureau at the rates requested, but being a "private" party he was trapped by a literal interpretation of the language.

The Secretary of the Treasury naturally had to enforce compliance with the law. The law was intended to stop freeloaders but was not worded that way. The correspondence between Heath and the government

indicates that an interpretation was obtained that the law was not intended to be enforced against those who repaid the government. Some felt the law had expired. It might be suggested from a humorous viewpoint that if the words "private parties" were interpreted as meaning private dinner parties instead of private individuals as parties that Heath would have had a better appetite for the 1869 law.

In any event the renewal of printing by the Bureau for Heath recommenced after a substantial delay. That did not prevent him from complaining that the law wrecked his business.

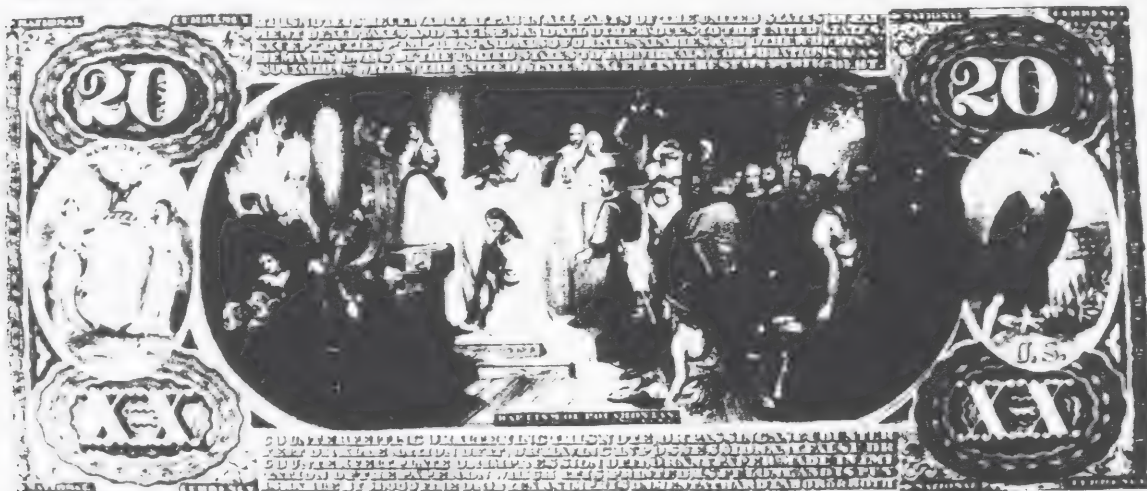
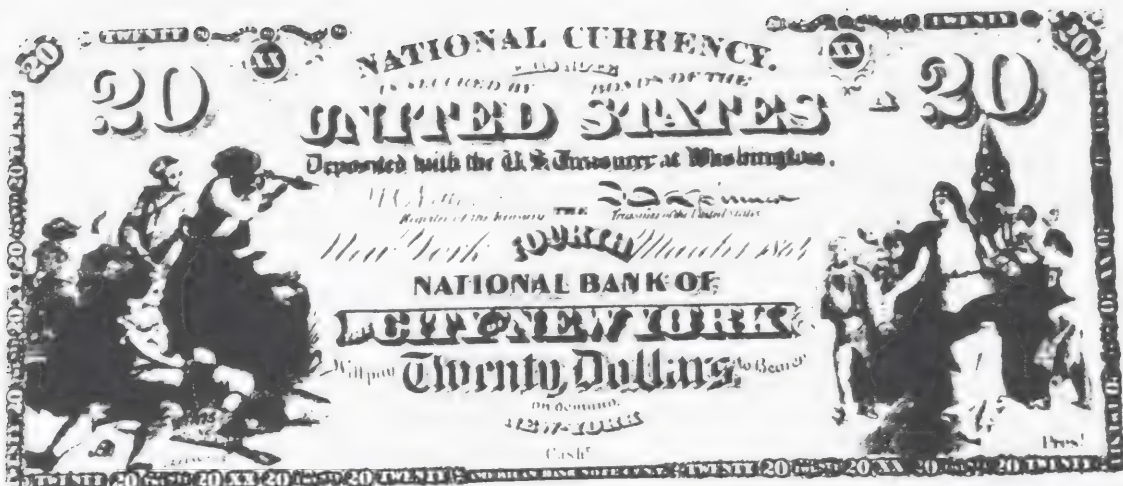
Delay and Shortage Problems

Due to delays and shortages of counterfeit impressions, the third Banking House edition is an example of how Heath was forced to make some major changes. The book must have been selling very well. The first state of that edition commences with 5 full-page prints of counterfeits as described in the List of Illustrations and on page 35, even though the List of Illustrations has the last 2 counterfeits transposed. These 5 counterfeits are \$100 First National Bank of Boston, Plate A; \$20 Fourth National Bank of the City of New York, Plate A; \$10 First National Bank of Philadelphia, Plate B; March 10, 1862 \$50 U.S. Note, first obligation, Plate C; and March 10, 1862 \$10 U.S. Note, second obligation, Plate C. There was also the face of the counterfeit 50 cent fractional currency note which was on a plate with 4 other faces of genuine third series fractional currency notes.

In the second state of the third edition an impression of an incomplete counterfeit of a \$20 First National Bank of the City of New York, Plate B, is substituted for the \$20 Fourth National Bank of the City of New York and an impression of an incomplete counterfeit of a \$10 Merchants National Bank of Chicago, Plate C, is substituted for the \$10 Philadelphia counterfeit. No change in the List of Illustrations was necessary as both changes were for corresponding denominations of National Bank Notes, but the text on page 35 was in effect corrected by two pasted in notices of the capture of the new counterfeit plates by the Secret Service.

In the third state of this edition an impression of a counterfeit March 10, 1862 \$100 U.S. Note, first obligation, Plate B, was substituted for the \$50 U.S. Note and an impression of a counterfeit March 10, 1863 \$5 U.S. Note, second obligation, Plate D, was substituted for the \$10 U.S. Note. The List of Illustrations was unchanged and therefore was in error as to the denominations of the counterfeit U.S. Notes. Pages 35 and 36 of the text were properly corrected.

By the fourth state of the third edition the supply of \$100 Boston counterfeits was exhausted and its list



Impression from captured counterfeit plates of the \$20 Fourth National Bank of the City of New York used in both Banking House editions and in Pocket editions. Heath used 10 different notes printed from captured counterfeit plates, including the counterfeit 50 cent third issue of fractional currency.

ing and designation as plate XII in the List of Illustrations was eliminated, leaving a numbering gap. Also in that List plate XVI was properly changed to a \$100 denomination. Page 36 was corrected to eliminate plate XII but contradicted the List of Illustrations and the order of insertion in the book as to the \$5 and \$100 U.S. Note counterfeits.

By the fifth state of the third edition the supply of \$10 Chicago impressions was exhausted and it was eliminated in the List of Illustrations and on page 35 as plate 14. However, the supply of \$5 U.S. Note counterfeits soon failed and its omission as an insert caused an ink line to be drawn through its unnumbered description in the List of Illustrations.

By the sixth state of the third edition there was total confusion from lack of impressions, and pages 35 and 36 were removed from the book entirely leaving a paging gap. The List of Illustrations remained unnumbered after plate XIII. One counterfeit \$100 U.S. Note is included, but there may be variables in this

state as the supply of all counterfeits (not including the fractional currency face) became exhausted.

Further detail as to the third Banking House edition is shown in the Variety Table.

Major Errors

The comedy of errors in Heath's publications was the result of haste, delays, confusion, red tape, disappointing cooperation and some circumstances beyond Heath's control. Most of the errors could also be attributed to the good fortune of enormous sales of his books.

A generally unnoticed error that pervades virtually all of the Banking House editions and all of the Pocket editions after the middle of 1867 is the wrong patent date (July 12; 1867) stamped in gold leaf on the front covers of the books. The date when the patent on his partial mutilation of vignettes was granted was July 2, 1867 which is seen on very few early covers. There

were no patents granted on July 12, 1867 to anyone.

To make a bad spelling error on a title page of a book is unusual but all Pocket editions bearing the 1873 copyright date have BUBLISHED.

A malapropism is encountered when PRECEEDING is used to refer to plates which follow page 35 of the third Pocket edition, etc.

There is a deluge of misnumbering of plates and misdescription of plates and contradictions in that respect between different parts of the listing if a plate is omitted. Sometimes there is a gap in the numbering of plates. Sometimes two different plates have the same number for two different correctly numbered plates. Sometimes the plate numbers are partially corrected by overprinting or by handwritten numbers. Sometimes, due to shortage of plates, some were omitted. It is a puzzlement why proof reading was so poor.

One of the most amazing errors in Heath's publications is the inclusion of commentary on a non-existent \$3 United States Note. Although such a \$3 note was authorized in 1862, none was ever completed for issuance. In instructions about detection of altered notes, Heath included in his books in an uninterrupted period from 1864 until 1877 the following:

In the United States bills, or greenbacks, the ones, twos, and threes have a circle of green lines radiating from the denomination. The circle can be found on no larger notes than threes, if genuine. This is an additional safeguard against altering United States notes.⁷

Such an explanation from an expert on the subject is "as phony as a three dollar bill."⁸

In the first Pocket edition there is a comic error on page 4 where Heath states "Many ladies, under the tuition of the author, have become experts in detecting counterfeits." Heath is silent as to the ability of men. Is that a "put down" for women?

The inclusion of his "Introduction to (the) First Edition" in both the second Banking House edition and the second Pocket edition is not accurate in that he purposely changed the item he was quoting in a substantial manner, as previously pointed out.

The number of books he produced was put in print on the title page of the first Pocket edition by designating each THOUSAND, beginning with SECOND THOUSAND. This procedure became totally unreliable because in the numbering which reaches SEVENTEENTH THOUSAND, he omits as many numbers as he includes (see Variety Table).

The numbering of his editions is often fictitious as there are no intervening editions known between the fourth and tenth editions, etc.

His 13th, 14th and 15th Pocket editions carry only an introduction to the 12th edition.

The American Bond Detector has 9 beautiful plates of embossed coins and a detailed description of the first 8 plates, but the description of the last plate was forgotten.

All of these and many other errors will be found in the Variety Table which is set out herein in more detail or in other portions of the text.

A Dealer's Chicanery

The impression of a counterfeit \$100 First National Bank of Boston note on thick plate paper was included in most of Heath's second and third editions of each size. It is of superb quality and is made from a plate engraved by Charles Ulrich. There is a spelling error on the right end of the face where the first T in MAINTAIN IT was not crossed so that it reads MAINIAN IT. The signatures of the bank officers are a printed reproduction on the plate rather than handsigns in ink as in all genuine National Bank Notes of that era. Engraved signatures were standard in United States Notes, and the 4 examples from counterfeit plates of U.S. notes in Heath's detectors copied those signatures as part of the engraving.

The counterfeit \$100 Boston impression used by Heath usually had a small hole punched through it. Some ignorant or unscrupulous persons described these notes when removed from the books as cancelled cardboard proofs. Such a note was catalogued as lot #164 by William P. Donlon in his auction sale of November 16, 1975 as a genuine cardboard proof valued at \$1200 and illustrated it on the front cover. Lot #165, an impression of the back of the note, was similarly offered as genuine and valued accordingly. These notes were withdrawn from sale after the "error" was brought to the attention of the cataloguer, but to no avail. In his November 10, 1976 sale Donlon again offered the same alleged proof of the face as Lot #937 as well as illustrating and offering the same back as "believed to be a genuine proof" and "certainly worth a good 3 figure bid." Donlon was the author of *United States Large Size Paper Money - 1861 to 1923* (1968 et seq.) and a prominent dealer and "expert" in the field.

Adding a Bond Detector

The idea of including in his currency books a section on how to detect counterfeit U.S. bonds was first presented by Heath to Hugh McCulloch, Secretary of the Treasury, in a letter dated June 11, 1868 when Heath asked for permission to obtain a few vignettes and one coupon from each series of U.S. Bonds. These were to be protected by segmented mutilation, just as currency vignettes were. The Treasury Department concluded that the employees were too fully occupied

so that it was inconvenient to prepare these items for Heath. Heath wrote again on September 19, 1868 and received an affirmative reply on October 6, 1868, on condition that the same rules would be followed as applied to currency impressions. When 22 bond plates were suggested in that October 6, 1868 letter, the size of the plates and the number of them made a separate publication necessary.³

Portions of some bonds rather than full bonds could be used to conserve space and to broaden the coverage. In the list there was a genuine \$1000 5/20 coupon bond of the 4th series and a counterfeit of the same issue. There was also a counterfeit back plate for the same counterfeit bond. Because 6 of the bonds required two-color printing, it was necessary to prepare 6 extra transfer plates. This resulted in 26 transfer plates being prepared and the direct use of the 2 counterfeit plates to print impressions. An order for 5000 prints of each of the 22 subjects was given by Heath, and by January 26, 1869 the printing had commenced. The invoice of March 8, 1869 showed that identification and numbering was engraved on each transfer plate and on the 2 counterfeit plates. The charge for furnishing the 10" by 14" steel plates was 8 cents per square inch or \$291.20. The charge for engraving identification and numbering was 75 cents or \$1 for each, depending on the amount of lettering. Heath had sent in an order for an additional 10,000 sets on March 1, 1869. He was preparing for another sensational success.

Sabotage of the Bond Detector

Spencer M. Clark was Chief of the First Division of the National Currency Bureau at the time when Heath first requested the Secretary of the Treasury to grant permission to have prints made for Heath's books. Clark, in November 1864, had published an extensive study of the cost of printing currency and showed that it could be well done at a substantial saving over what it cost to contract the work to private bank note companies.⁹ The bank note companies at the time were printing all of the National Bank Notes and did not wish to lose the business. They had already lost the engraving of plates for and the printing of the United States Notes. Their aim was to undermine Clark's reputation and have him removed. This was apparently pressed through political influence and was accomplished by 1869 after a series of controversial activities.

Many employees of the Bureau were bitter at the way Clark was treated. The problem of his portrait being on fractional currency of the third series affected Francis E. Spinner and William P. Fessenden as well, so it was another lame excuse for Clark's demotion and ouster from the Bureau of Engraving and Printing.

In March 1869 bond impressions and some currency impressions were completed and packed in 13 boxes ready for shipment to Heath in Boston. A request to inspect them before payment was made was denied. Ordway personally paid \$10,000 for Heath and signed the receipt on Heath's behalf. Ordway then pointed out that the printing cost was far in excess of what had been charged for work under Clark. In July 1869 Ordway asked that the invoice be separated because the bond portion was to be charged to a different account. This apparently meant that at least one other person (Ordway) was a participant in the bond detector project. On July 11, 1869 Ordway wrote the Treasury that the bond detector was being pushed and was not yet ready.

The opening of the 13 boxes of impressions in Boston revealed the sabotage. The portraits were dim from insufficient wiping and inking, the prints were blurred and defective,¹⁰ the backs were smudged from insufficient drying and tissue protection, some prints were torn or otherwise mutilated, and some two-color prints had only the colored portion and no black.³ Thus impressions of Plate 18 (the \$500 Registered Five-Twenty U.S. Bond of 1865) in *The American Bond Detector* are found in red and black in some volumes, while they are found in green and black in others. The remaining employees of the Bureau who were loyal to Clark were venting their irritation by interposing obstacles to good work and the new employees were not being supervised. McCulloch, as Secretary of the Treasury, had announced his retirement and the Bureau was in chaos. The sabotage might also have been a reaction to political influence used to incite the Clark controversy and to political influence used for Heath's privileges.

The long struggle to try to straighten out the matter began. The Treasury refused to reprint the bond impressions, first using the 1869 law as an excuse. Heath explained that the 1869 law did not apply to transactions prior to its passage but only to new transactions. The bond impressions had been ordered before the law was passed and should have been replaced on that basis.

Only a small part of the impressions were usable, and Heath sent damaged samples to the Treasury in the summer of 1870. On October 18, 1870 Jules Golay, Assistant Chief of the Bureau, reported that he had gone to Boston, examined the prints and that the work had been poorly done. The Treasury said no refund would be possible without an Act of Congress. The printing of counterfeit currency impressions also stopped until 1871 and Heath could not complete his books for which he already had other prints on hand. By Heath making new payments for currency impressions, that supply continued. Heath claimed that the loss on the bond prints was \$10,000 paid, plus \$5,000

for 7,000 pounds of wasted paper he furnished, plus \$5,000 for the typeset text and the coin plates prepared for the detector, making a total of \$20,000.

The matter dragged on. By July 2, 1873 a committee of 5 from Washington, led by Congressman A. H. Cragin of New Hampshire, was appointed to visit Boston and make a report. The junket was arranged, and the July 26, 1873 report stated that there were hardly enough respectable prints to make a dozen books. A few bond detectors had been published by 1869 using the best plates impressions, but the investigators only saw what remained. They recommended that Heath be permitted to purchase prints of new issues of United States Notes and National Bank Notes, but made no recommendation for reprinting the bond impressions and made no suggestion of repayment. The government formally denied the claim on August 12, 1873.

In reviewing the claim, Ordway wrote a letter dated November 1, 1875 to Benjamin H. Bristow, Secretary of the Treasury, reviewing past events and stated: that Heath conceived the idea of publishing a history of the bonds and illustrating it with mutilated imprints; that Ordway "collated and prepared the work for the press;" that a valuable lot of coin plates prepared for the work was rendered worthless; and that Heath was bankrupted and assigned all his plates to Ordway for the \$10,000 Ordway had paid for bond detector impressions. Apparently this had little effect. Then Senator Allen T. Caperton from West Virginia wrote a letter dated February 21, 1876 to try to be of help. Again nothing happened. The records show that on March 3, 1885 the Office of the Secretary of the Treasury called for the entire Heath file in order to review it, this being about 15 years after Heath's claim arose.³ Further action has not been located.

The complications arising from the 22 bond impressions in *The American Bond Detector* serve as an early version of Catch-22.

Bond Detector Authorship

The authorship of *The American Bond Detector* has always been unclear because no author is stated. It has been attributed to Ordway because he filed for its copyright in 1869 with the Clerk of the U.S. District Court for the District of New Hampshire. It so happened that the verso of the title page on a few copies show that John P. Dale filed for its copyright in 1869 with the Clerk of the U.S. District Court for the District of Massachusetts. The publisher is listed on the title as the American Bond and Currency Detector Company in Washington, D.C., without a street address. Whether Heath, Ordway, or any others had an interest in that organization is not available, but there is a clue in the Introduction in which the

unnamed writer stated as to the pie-shaped mutilation used on the vignettes that "this method of mutilation has been patented by the publishers for their exclusive use." Heath was the inventor and held that patent. Heath was then using "LABAN HEATH & CO." as publishers of his currency counterfeit detectors and wrote the Introduction to *The American Bond Detector* with that in mind. It is obvious that he subsequently thought up the seemingly impressive name for the publishers of the bond detector and forgot what he wrote in the Introduction. Thus it is clear that Heath wrote that Introduction to *The American Bond Detector*.

The previously mentioned letter, dated November 1, 1875 from Ordway to Bristow, included Ordway's assertion, "I really collated and prepared the whole work for the press." Thus Ordway claimed only that he assembled the content of the book in proper order for printing. He made no claim to any authorship. It has been shown that even though Ordway personally paid \$10,000 toward the bond impressions and some currency prints and wanted the billing segregated for the former, this was only a loan because Ordway stated that Heath collateralized the obligation by transferring to Ordway all of Heath's plates as security. Regardless of how the proceeds of the book were to be divided, the reasons outlined lead to the conclusion that Heath was the author and not Ordway. Heath certainly wrote the Introduction, only the Treasury Department could furnish the bond detail, and the description of the coin plates was a condensation of what Snowden published. Heath may not have written very much of the book, but he was the creator of the bond detector idea, he had the parts to assemble in Boston, and there is no one else to whom authorship can be assigned. It seems that *The American Bond Detector* was a hoped for method to have Ordway receive money for using his influence to secure continued Treasury Department cooperation for Heath. The American Bond Detector was priced at \$16. It must not have sold well as its price was reduced to \$10 as advertised in the Banking House and Pocket editions of the currency detectors copyrighted in 1873.

Copying Snowden

The 9 large coin plates in Heath's *The American Bond Detector* contain full-size embossed images of the obverse and reverse of coins pressed into paper coated on one side with a metallic color to resemble the color of each original coin. Gold, silver, and bronze colors were used in the shape and size of the coins to be embossed, and sometimes more than one coin color would be used on a single plate. The coin images were surrounded by a maroon background, and the plates carry the name of J. Haehnlen of Philadelphia. The

backs of the pages were blank except for negative embossment. This process had been developed in Germany and was first used in the United States in the 1849 supplement to *A Manual of Gold and Silver Coins of All Nations* by Eckfeldt and DuBois and in 1850 in their *New Varieties of Gold and Silver Coins*. The next American use was in James R. Snowden's *A Description of Ancient and Modern coins in the Cabinet Collection at the Mint of the United States* (Philadelphia 1860), where 27 small coin plates are included and fully described in the text accompanying them. Those were prepared by E. Ketterlinus of Philadelphia. Kirby W. Brown pointed out that the Heath coin plates were a reuse of the Snowden coin plates and that, except for the fact that 3 Snowden plates were combined to make 1 Heath plate, the images were "identical." He also pointed out that the Heath plates were numbered in Arabic numerals and the Snowden plates were numbered in Roman numerals and there were border differences.¹¹ A careful examination of the composition of the plates in each publication shows many differences, some of which are as follows:

Snowden Plate I has an Oak Tree shilling, while Heath Plate 1 has a Pine Tree shilling;

Snowden Plate I has no 1792 Washington President cent illustrated, while Heath Plate 1 has an illustration of it;

Snowden Plate I has different varieties of the Connecticut, Vermont, and New Jersey coppers from those in Heath Plate 1;

Snowden Plate I has 2 Virginia halfpence obverses, while Heath Plate 1 has only 1;

Snowden Plate II has a genuine Fugio cent, while

Heath Plate 1 has a "New Haven" copy of a Fugio cent;

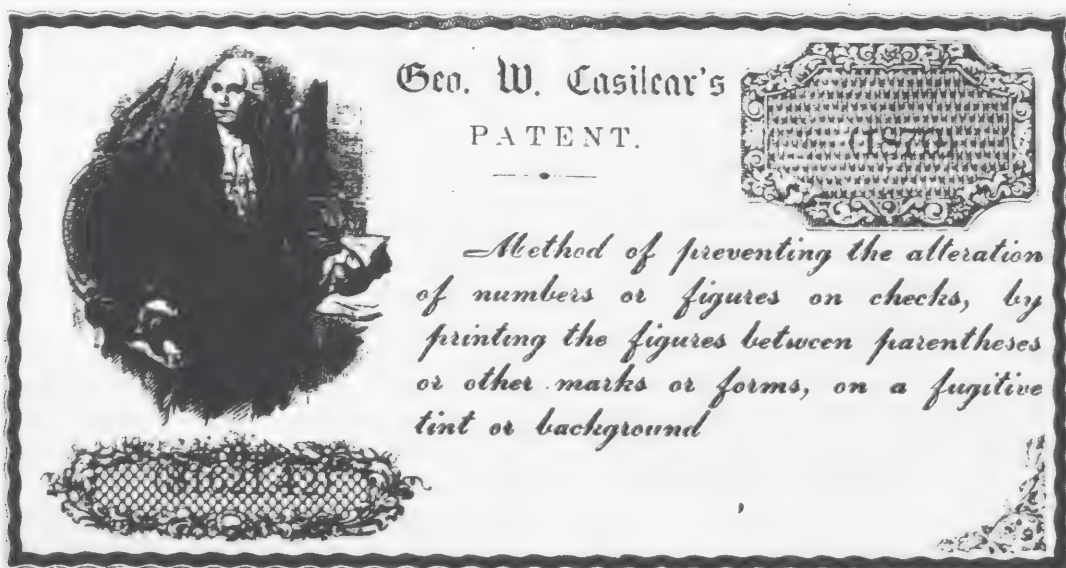
Snowden Plate II has different varieties of the Nova Constellatio copper, the Massachusetts cent, and Massachusetts half-cent than those on Heath Plate 1;

Some coins are shifted in position, such as the \$5 1851 O Mint and the \$5 1855 S Mint on Snowden Plate V when compared to Heath Plate 2.

These differences are fortunate because they clarify to a major extent how these plates were prepared by a separate pair of electrotypes (one positive and one negative) being used to press the image into the paper. The positives were set in a desired position in a frame filled with pliable material which hardened. The negatives were put in a similar frame in exact registration, so that when the frames were squeezed together with the paper between them, each pair of electrotypes would mesh, leaving an identical raised impression on the metallic-coated paper side and an intaglio impression on the other side.

By Heath's use of many of the same electrotype images the evidence of the reuse of some of Snowden's electrotypes is obvious. Apparently some of the old frames were reworked into the new frames and others had to be remade.

The Snowden text describing the pieces illustrated in his coin plates was entirely rewritten and shortened for the description of the Heath coin plates. By mistake, Heath's text describing the coin plates omits any mention of plate 9 or its coins. To add to this confusion, Heath stated in the Introduction that there were 9 plates, but stated in the List of Illustrations that there were 8 plates.



Advertising card containing a sample of the patent of George W. Casilear. It has two panels printed in green ink which deteriorates if acid is used to alter the dark numbers printed on the panels. This card was included in some of Heath's counterfeit detectors.

However, Heath's description of the coin plates used the name SNOWDEN directly under the subtitle MODERN COINS on page 41 as a recognition of the source of the text. In addition, he tenders a general acknowledgement on page 3 of the Introduction to a group including "James Ross Snowden, Esq., formerly director of the United States Mint, Philadelphia." It is clear that Heath, or someone on Heath's behalf, had obtained Snowden's consent to use the coin plate material and its explanatory text.

Household Edition

In order to use up state bank note plates left over from the first and second Pocket editions, Heath created a Household Edition in 1870 in pocket size. Its title was different from the Banking House and Pocket editions and was called *The United States Counterfeit Detector and Teachers' Guide*. It was cheaply bound and sold at \$1 each. Its back cover advertised all of Heath's other detectors. The book also gave Heath the opportunity of using up a remainder of George W. Casilear's advertising cards for his alteration deterrent patent. These cards had been printed at the Treasury Department from a plate made by Casilear when he was head of the engraving section. The inclusion of these cards in some of Heath's counterfeit detectors must have helped Heath secure the cooperation of the Treasury Department printing facilities.

Further details of this edition may be found in the Variety Table.

Heath's Coinage Book

The insufficient number of impressions of bonds for *The American Bond Detector* left Heath with an inventory of printed text and an inventory of coin plates. The portion of the text relating to the bonds was unusable without the bond illustrations. The portion relating to the coin plates was usable to the extent there were coin plates. To salvage what he could, Heath therefore created a new book entitled *The History of Ancient and Modern Coinage*. Laban Heath & Co. as publishers was on the new title page along with the date 1871. The book had its title stamped in gold lettering on its maroon cover. The verso of the title page, however, copied the copyright information from *The American Bond Detector* which showed the old Ordway 1869 copyright. The Preface states that the publication was "urged by many numismatians."

The text of the book starts with 3 unnumbered pages and then the numbering of the pages describing the plates begins at page 38 and ends at page 66. There is nothing in between because the leftover intervening material from the bond detector could not be used. Even though the title mentions 9 coin plates,

the descriptive material remains uncorrected and only describes what is on the first 8 plates. Then the page numbering skips to page 77 where statistics unrelated to numismatics were used as filler until pages 89 through 94 which, though partly unnumbered, provide U.S. Mint history and coin production data. Sandwiched in between the mint and coin data is an irrelevant page of export statistics. All of these pages were leftovers.¹¹ The edition was small and used up the remaining coin plates and an equal number of sets of leftover text.

Presentation and Special Editions

In addition to standard editions of Heath's publications, there were special editions prepared for dignitaries and for special uses. Public officials customarily were recipients of books with ornate leather bindings and having their names stamped on the covers in gold letters. Each such issue is unique and several have survived.

There are also special purpose publications which have minor modifications from the normal editions.

A few examples from these two groups are as follows:

A second Banking House edition was prepared for Col. N. G. Ordway with his name in gold letters on a red leather binding and an engraved portrait of Hugh McCulloch, Secretary of the Treasury, in front of the title page.

A second Pocket edition was stamped in gold lettering on the back cover PUBLISHED FOR EASTMAN COLLEGE *PRICE 4.00.

A second Pocket edition was bought in quantity by the Pennsylvania Railroad Company on April 20, 1869. An inside label stated that it was railroad property, along with an accompanying microscope; and that when there was a change in station agent, a receipt from the new agent was required.

A salesman's dummy for *The American Bond Detector* has a few normal pages followed by order blanks for copies bound in cloth for \$16.00, bound in half Morocco for \$20, and bound in a full Turkish Morocco bevelled edge cover for \$25.00.

A stripped-down version of *The American Bond Detector* with interleaved advertising was published in September 1871 to be used in hotel reading rooms, exchange news rooms, steamers, and in railroad Pullman Palace Drawing Room cars. The cost of a full page of advertising was \$150.00.

Vital Data

Laban Heath, son of Solomon Heath, was born on January 18, 1837 in Bow, Merrimack County, New

Hampshire. He was named after his paternal grandfather, Laban Heath (1772-1832) who operated a saw mill in North Bow. Where and when he became a teacher of counterfeit detection is not known, but he announced that in his publications beginning in 1864. He apparently had no connection with the Association of Banks for the Suppression of Counterfeiting which was organized in Boston on February 9, 1853 pursuant to a grant from the Massachusetts legislature on May 18, 1852 and which operated successfully throughout New England during the state bank note redemption period. That organization's endorsement in Heath's detectors indicated their cooperation with him.

LABAN HEATH,
AUTHOR OF THE NEW
Government Counterfeit Detector,
AND INVENTOR OF
HEATH'S PATENT COMBINATION GLASS,
No. 20 Washington Street,
BOSTON, MASS.

Business card of Laban Heath used about 1866.

Heath's connection with the sale of Gear's detector in 1860 does not indicate that he was teaching at that time. In the 1863-64 Portland, Maine, City Directory he is listed as a clerk boarding at Lawrence House. He had moved to Boston by 1864 when his first detector was published and he maintained offices in downtown Boston for the balance of his career. He died in Revere, Suffolk County, Massachusetts, on January 6, 1894 and was buried in Kennebunkport, Maine. His wife had predeceased him and he bequeathed his estate, including his library, to his wife's sister, Nellie O. Emery. His obituary is in the *Boston Transcript* of January 8, 1894.

In addition to publishing counterfeit detectors, he was in the magnifying and telescope equipment business.

In 1871 he copyrighted and published a *Description of United States Treasury Notes Known as Greenbacks; National Bank Notes; and the New Treasury Notes, Series of 1869*, which contained no illustrations and was not a detector. It was advertised in Heath's fourth Banking House edition and sold for \$1.

Heath was also the publisher of George P. Burnham's *Memoirs of the United States Secret Service* (Boston 1872) in which he advertised his detectors.

Variety Table Classification Method

The multiplicity of varieties of a book can be as intriguing as the multiplicity of coin dies or paper money varieties, particularly if the purport of the changes and the order of issue have historical meaning in relation to numismatic events about which the book was written. Thus the varieties of Heath's work are categorized, first by edition, then by size, and finally by detailing principal distinguishing features. Varieties are placed in the order of issuance to the extent that is reasonably determinable. One expects more varieties will be found when one initiates any system of classification, and it is hoped that the Variety Table will stimulate those interested in bibliographic history to appreciate Heath's accomplishments.

Heath filed his bank note counterfeit detectors for copyright purposes in 1864, 1866, 1867, 1870, 1873 and 1877, and each printing has a copyright date on the verso of the title page. The second Banking House edition originally contained only the 1866 copyright date, but in later issues both 1866 and 1867 copyright dates appear. No other editions have more than one copyright date. The copyright dates bear no relationship to the date of Heath's patent for mutilating vignettes. His copyrights were filed in Massachusetts until 1870 when he filed them with the Librarian of Congress in Washington.

With about 100,000 copies of Heath's work originally issued, it should be easy to locate specific varieties in choice condition, but it is not. The books were poorly sewn and poorly bound, possibly because of the insertion, intermittently or in cluster, of many thick paper plates. The leaves are printed on paper made by a sulfur process and thus deteriorate or crack easily. They were bound in embossed or stamped cloth covers over cardboard so that with age they often disintegrate at the spine or hinges. They were often extensively used, including being thrown or dropped in the course of handling. Thus many had to be disposed of because of their damaged condition.

To add to their natural problems of bibliography, numismatists have torn out plates for collection purposes, for display, have joined partial notes to make full notes, and have pasted the fronts and backs of notes together to look "real." To check if plates have been removed, it is helpful to examine the adjacent text pages to where a plate might have been as the plate ink would have bled through to those pages if the plate was originally present. Many nice examples of the books do exist and classification has long been sought.

It has been asserted that collecting Heath detectors by variety beyond four Banking House editions and three Pocket editions qualifies that collector as a "nut."

It is also humorously said that the attitude or haste of the girls assembling the books created plate arrangements which are "weird."¹² The many text changes and plate shortages absolve the assembly-line personnel and create what a bibliophile often likes to wallow in.

The abbreviations for the types and varieties in the Table are as follows in the order of issuance:

The first number is the edition; The next capital letter, or letters, are P for Pocket edition, BH for Banking House edition, and HH for Household edition;

The small letter in the second edition of the Pocket size is h for horizontal lettering on the cover and s for sidewise lettering on the cover.

This completes the general type symbols and special characteristics common to that type then follow.

The next number is the number assigned to the variety. The variety has all of the characteristics of its general type plus distinguishing features which are then described.

No attempt is made to make the color of the cover a separate variety because light red, brick red, red orange, yellow, light green, emerald green, dark green, blue, burgundy, grape, maroon, brown and black colors have been located. The different imprints on Heath's covers are illustrated in this article. Some imprints are found on many detector varieties while some varieties have more than one cover imprint.

VARIETY TABLE

* * TYPE 1-P * *

First edition but not so stated;

Pocket size;

1864 copyright date;

HEATH'S INFALLIBLE COUNTERFEIT DETECTOR AT SIGHT;

Gold lettering on front cover is HEATH'S COUNTERFEIT DETECTOR AT SIGHT PRICE 1.50, but on some subsequent varieties the price is eliminated.

Variety 1-P-1.0

1864 date also on title page;

No mention of a specific THOUSAND on title page;

No publisher's agent on title page or elsewhere;

DAKIN, DAVIES, & METCALF, STEREOTYPERS AND PRINTERS, 37 CORNHILL, on verso of title page;

26 pages of regular text without any recommendations, publicity, or advertising following them;

8 plates of designs from state bank notes.

Variety 1-P-1.5

Same as Variety 1-P-1.0 except for:

1 page of recommendations following regular text with the latest date being June 23, 1864.

Variety 1-P-2

Same as Variety 1-P-1.0 except for:

No date on title page;

SECOND THOUSAND on title page;

A.WILLIAMS & CO, PUBLISHER'S AGENTS, 100 WASHINGTON STREET on title page;

5 pages of recommendations following regular text with latest date being November 1, 1864.

Variety 1-P-3

Same as Variety 1-P-2 except for:

THIRD THOUSAND on title page.

Variety 1-P-4

Same as Variety 1-P-2 except for:

FOURTH THOUSAND on title page;

2 additional tipped in plates (total now 10), being an engraved Laban Heath bank note style trade card and an impression from the captured counterfeit \$5 Bank of Orleans, New York plate;

Page 27 added to describe counterfeit impression.

Variety 1-P-7

Same as Variety 1-P-4 except for:

SEVENTH THOUSAND on title page.

Variety 1-P-10

Same as Variety 1-P-4 except for:

TENTH THOUSAND on title page.

Variety 1-P-11

Same as Variety 1-P-4 except for:

ELEVENTH THOUSAND on title page.

Variety 1-P-12

Same as Variety 1-P-4 except for:

TWELFTH THOUSAND on title page.

Variety 1-P-14

Same as Variety 1-P-4 except for:

FOURTEENTH THOUSAND on title page.

Variety 1-P-17

Same as Variety 1-P-4 except for:

SEVENTEENTH THOUSAND on title page;

INNES AND NILES, STEREOTYPERS AND PRINTERS, 37 CORNHILL on verso of title page.

Variety 1-P-20

Same as Variety 1-P-4 except for:

No mention on title page of amount printed;

Heath's address added on title page as 20 WASHINGTON STREET, BOSTON, MASS.;

Slight change in agent's name to A.WILLIAMS & CO., AGENTS;

TEACHER OF COUNTERFEIT DETECTION is eliminated on title page;

No stereotyper or printer is named on verso of title page or elsewhere;

A rectangular double border line which was around the text of every page in all other Type 1-P printings is eliminated.

(This printing may be from handset type instead of stereotype and could have been issued at any time after Variety 1-P-4 and before Type 2-P.)

* * TYPE 2-P-h * *

Second edition printed on title page and Introduction; Pocket size;

1866 copyright date;

Cover with 8 line gold lettering in horizontal position;

Title changed to HEATH'S GREATLY IMPROVED AND ENLARGED INFALLIBLE GOVERNMENT COUNTERFEIT DETECTOR AT SIGHT;

Heath address is 20 WASHINGTON STREET, BOSTON;

No agent or printer named;

New Section XII offering Heath's Magnifying Glasses for sale;

33 pages of regular text and 6 pages of endorsements;

Plates from first edition modified by renumbering 1 in place of 6, 3 in place of 1, 7 in place of 2, 8 in place of 5, 9 in place of 3, and 10 in place of 7.

Method of modification hereafter designated;

Plates 4 and 8 from first edition eliminated;

Overprinted typeset plate numbers added to unnumbered plates 15 and 16;

New plates numbered 2, 5, 4, 6, 11, 12, 13 and 14 contain an aggregate of 33 exclusively federal subjects which are described on page 4 as "about 50."

Variety 2-P-h-1

Modification of plates numbers accomplished by changing plate numbers before printing or by making new plates;

Page 17 does not mention \$5 National Currency and no such illustration is present;

Page 27 does not mention fractional currency and no fractional currency illustrations are present.

Variety 2-P-h-2

Same as Variety 2-P-h-1 except for:

Modification of plate numbers accomplished by printing large plate numbers over existing plate numbers in order to use up remainders of first edition plates;

Pages 17 and 18 revised to mention inclusion of half of face and back of \$5 National Currency designated as plate 17 which is present;

Page 27 revised to mention inclusion of 2 fractional currency plates which are present.

Variety 2-P-h-3

Same as Variety 2-P-h-2 except for:

National Currency plate is numbered 7 instead of 17 due to use of a trimmed down plate 7 from the second Banking House edition either by error or because of shortage.

* * TYPE 2-P-s * *

Second edition printed on title page and Introduction; Pocket size;

1866 copyright date;

Cover with 6 line gold lettering in sidewise position and containing either correct July 2, 1867 or incorrect July 12, 1867 patent date;

Last nine characteristics of Type 2-P-h;

Treasury letter dated September 3, 1866 sometimes inserted;

2 fractional currency plates described on page 27 are present;

Half of face and back of \$5 National Currency note described on page 17 is present;

Folded impression of captured counterfeit plate of \$100 First National Bank of Boston is present;

Page 33 is expanded to refer to 4 magnifying glass figures which are present.

Variety 2-P-s-4

Modification of plate numbers accomplished by printing large plate numbers over existing plate numbers in order to use up remainders of first edition plates;

Latest endorsement date is January 15, 1867;

Microscope illustrations cover 4 pages.

Variety 2-P-s-5

Same as Variety 2-P-s-4 except for:

Impressions from \$20 Fourth National Bank of New York counterfeit plate or from \$10 First National Bank of Philadelphia counterfeit plate, or both, are present in addition to \$100 First National Bank of Boston and 50 cent fractional currency counterfeits.

Variety 2-P-s-6

Same as Variety 2-P-s-5 except for:

Modification of plate numbers accomplished by changing plate numbers before printing or by making new plates;

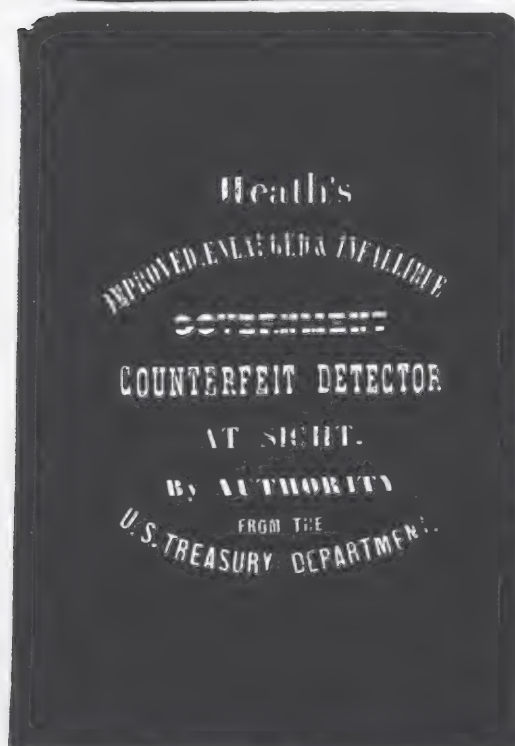
Casilear patent anti-alteration sample card numbered 1869 (the year) present in place of plates 15 and 16 even though page 13 refers to plates 15 and 16;

Magnifying glass illustrations condensed to 2 pages; Latest endorsement date is December 2, 1867.

Pocket Edition Covers
(Size reduced from 16.5 x 10.8 cm.)

\$1.50 price. 1

No price. 1



2

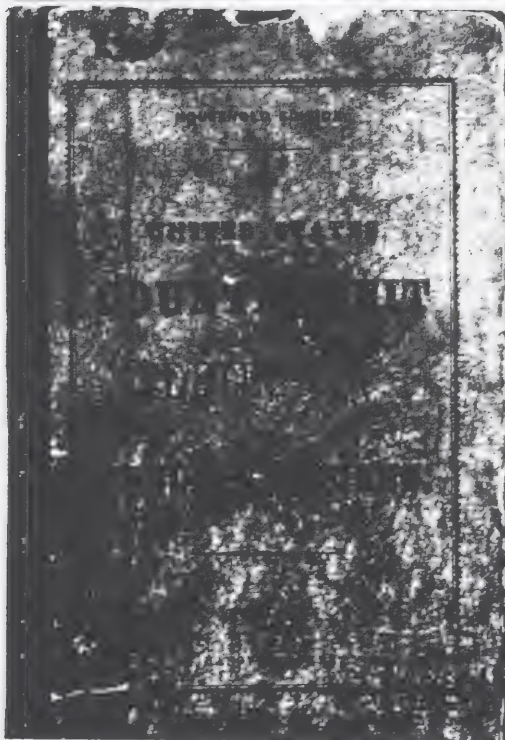
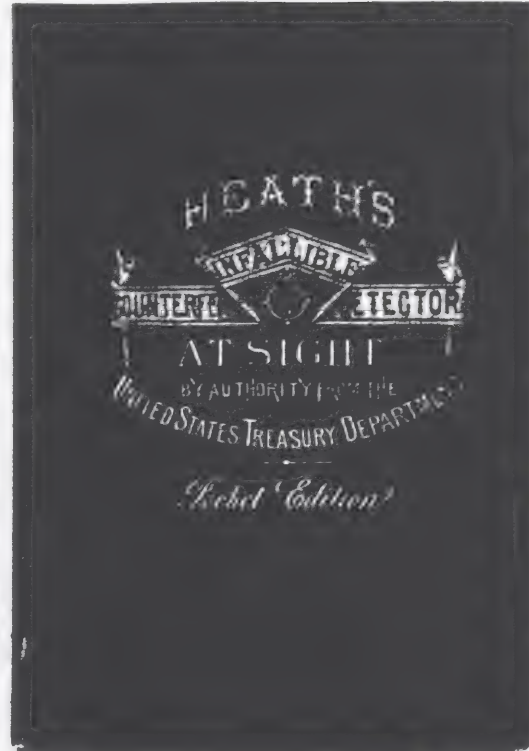
Correct patent date. 2

The numbers indicate the edition on which the cover was used.
(See Variety Table for detail)

Pocket Edition Covers
(Size reduced from 16.5 x 10.8 cm.)

Incorrect patent date. 2

Ornament. 3, 10, 11

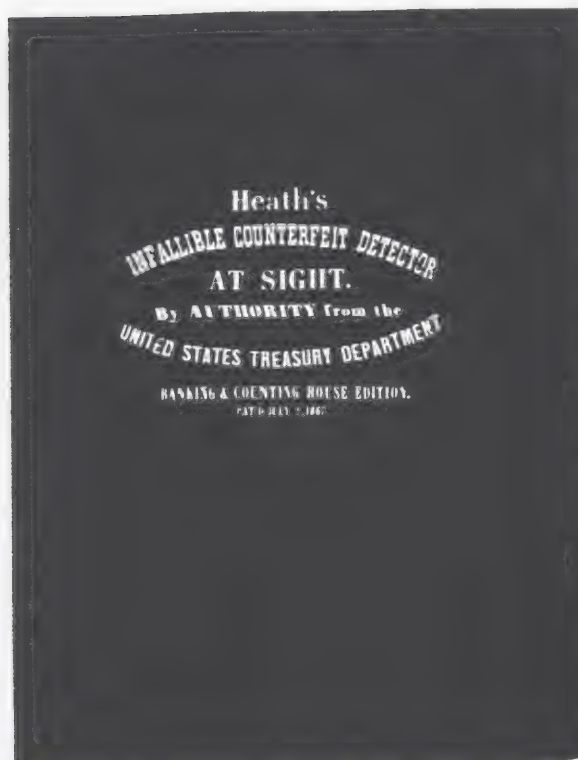


Household edition

Revised. 12, 13, 14, 15

The Numbers indicate the edition on which the cover was used.
(See Variety Table for detail)

Banking House Edition Covers
(Size reduced from 29.5 x 19.5 cm.)



The numbers indicate the edition on which the cover was used.
(See Variety Table for detail)

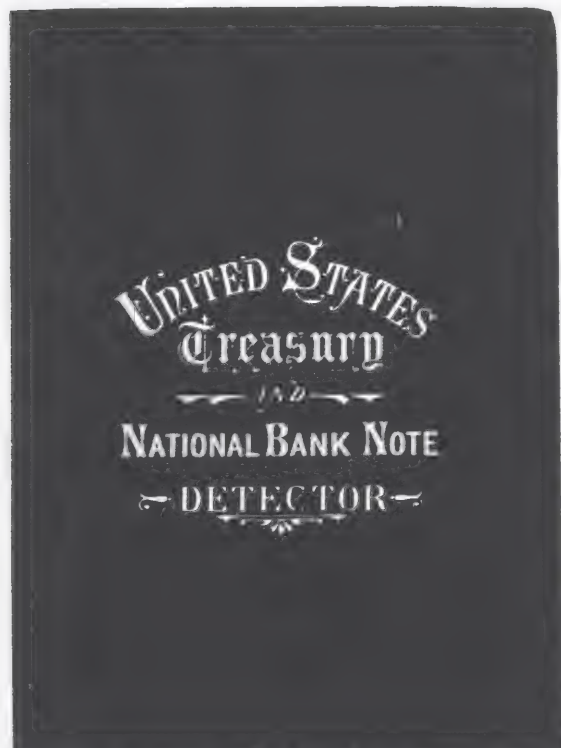
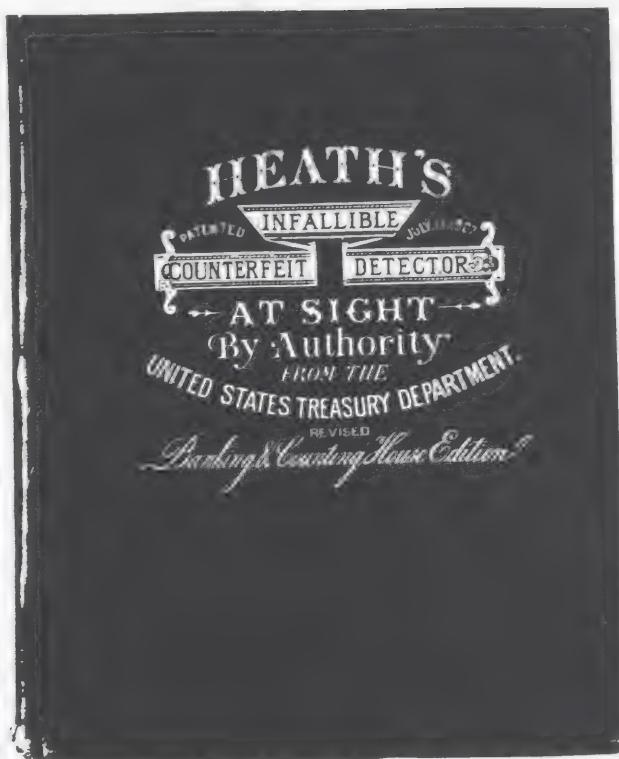
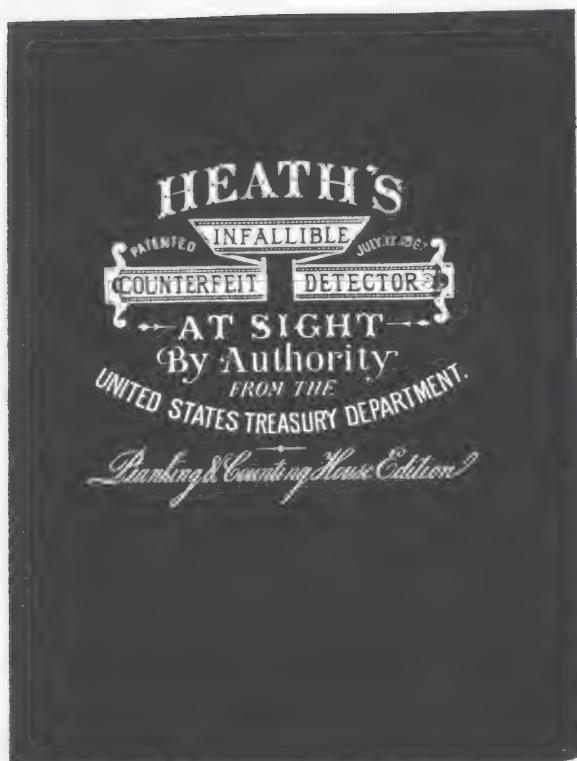
Upper left:
Correct patent date.
2

Upper right:
Incorrect patent date.
2

Lower left:
Lacking patent date.
2



Banking House Edition Covers
(Size reduced from 29.5 x 19.5 cm.)



The numbers indicate the edition on which the cover was used.
(See Variety Table for detail)

Upper left:
Incorrect patent date. Ornament.
2
3
4

Upper right:
Incorrect patent date. REVISED.
12

Lower left:
13

* * TYPE 3-P * *

Third edition on title page and in Introduction;
Pocket size;
1870 copyright date;
Cover with 7 styles of gold leaf lettering partly on a folded ribbon design and with an erroneous July 12, 1867 patent date;
Publisher and copyrighter changed from LABAN HEATH to LABAN HEATH & CO.;
Address of Heath changed to 30 HANOVER ST, BOSTON;
TEACHER OF COUNTERFEIT DETECTION eliminated on title page;
Copyright filed with Librarian of Congress in Washington instead of with Clerk of District Court in Massachusetts;
Most plates moved to back of book instead of being interspersed;
N.H. Ordway and individual bank recommendations eliminated;
References to the Perkin's Plate eliminated.

Variety 3-P-1

36 + 8 = 44 pp.
The number of text sections was reduced from 12 to 11 and some are renamed;
As in Varieties 2-P-s-5 and 2-P-s-6 three impressions of captured counterfeit National Bank note plates (\$100 Boston, \$20 New York and \$10 Philadelphia) are folded in half and are present as plates 15, 16 and 18 in accordance with pages 13 and 32;
The plates consist of 2 fractional currency plates, the three National Bank counterfeit impressions, plates 2 through 9, 11 through 14, and 17, but former plate 10 relating to state bank note designs is eliminated.

Variety 3-P-2

32 + 8 = 40 pp.
Same as Variety 3-P-1 except for:
The number of text sections was reduced from 11 to 10 by elimination of Medallion Ruling Engine work;
Section numbering was eliminated throughout the text except in the Introduction;
Numbering on previously used plates was replaced by transfer to new plates or altering old plates on the following: 3 in place of 4; 4 in place of 5; 5 in place of 6 (referred to on page 16); 6 in place of 7; 8 in place of 11; 9 in place of 12; 10 in place of 13; and 11 in place of 14. Previously used plates 8 and 9 relating to state bank note designs were eliminated. Impressions from counterfeit plates were confusingly described as plates 12, 13 and 14 on page 11 and as plates 13, 14 and 15 on page 28. There is no plate 7, although it is referred to by failure to change the text on page 13. The impression of the counterfeit \$10 Philadelphia note has sometimes been replaced by an impression of the face and unfinished back of the newly captured counterfeit plates for the \$10 Merchants National Bank of Chicago and a printed page is inserted describing its dangerous quality;
As to plate 6, a new plate 6 consisting of lettering from National Currency (First National Bank, etc.) is used instead of the modified plate 6 which has lettering from state bank notes (Adam's Bank, etc.).

Variety 3-P-3

Same as Variety 3-P-2 except for:
The recognition that renumbering mistakes had been made in Variety 3-P-2 and the remaining unchanged plates on hand forced another renumbering of some plates by writing new plate numbers over modified or old plate numbers in ink in the following manner: 7 over 8; 8 over 9; 9 over 10; 10 over 11; and 11 over 17;
Remainders of plate 6 with state bank note designs were sometimes used in place of plate 6 with federal designs;
Impressions from captured counterfeit face and back plates of the \$50 United States Note dated March 10, 1862 (mentioned on page 14) are sometimes inserted instead of the \$20 counterfeit Fourth National Bank Note of New York which is mentioned on pages 11 and 18 as being illustrated.

Variety 3-P-4

Same as Variety 3-P-2 except for:
In the second paragraph on page 11 relating to impressions of counterfeit plates, there is an asterisk written in ink and at the bottom of the page written in ink is * TAKEN OUT BY ORDER OF SECY OF TY. This refers to the enforcement by the government of the use of impressions made in violation of section CXXIII of the Act of March 3, 1869. Thus there are no impressions from counterfeit plates present;
There are 32 pages of text including magnifying glass illustrations and 8 pages of recommendations and advertising;
Page 5 of the Introduction calls for a section 10 entitled COUNTERFEITS but the title of such a section on page 29 has been changed to Heath's Microscope Glass and the content is limited to that topic;
Engraved plates consist entirely of Federal devices, being 2 fractional currency plates, plate numbers 2 through 10, and 17.

* * TYPE 10-P * *

Tenth edition on title page;
Pocket size;
1870 copyright date;
Same as Variety 3-P-4 except for the number of the edition.

Variety 10-P-1

No evidence has been located indicating that any Pocket edition existed between the third and the tenth editions. There is a fourth edition in the Banking House size.

The number of sections of text listed on page 5 of the Introduction has been reduced from 10 to 9 by eliminating section 10 formerly entitled COUNTERFEITS;

References to impressions from captured counterfeit National Bank Note plates are eliminated on pages 11 and 12.

Reference to plate 11 on page 14 is eliminated;
Illustrations of microscopes are eliminated.

Variety 10-P-2

Same as Variety 10-P-1 except for:

A combination engraved and typeset card has been added at the back describing the patent of George W. Casilear relating to the prevention of alteration of instruments by printing or writing numbers on a green tinted background which will dissipate if any acid is used to remove the number. This card carries the number 1871 which is indicative of the year when it was printed.

* * TYPE HH * *

HOUSEHOLD EDITION on paperboard cover and on title page.

Pocket size;

1870 copyright date;

UNITED STATES COUNTERFEIT DETECTOR AND TEACHERS' GUIDE;

Plates mentioned in text are fractional currency and 1, 2, 4 and 5;

State bank note designs are on plates 1 and 4;

Plate 2 has Federal designs;

A combination engraved and typeset trade card of George W. Casilear is present containing the number 1870 which appears to be the year of printing;
Casilear's patent is explained on page 20.

Variety HH-1

Advertisements feature the American Bond Detector, the Banking House edition of Heath, the Pocket edition of Heath, the MICRO-TELESCOPE GLASS with 4 pages of microscope illustrations;

Back cover also advertises the first three publications mentioned above and refers to the Third Edition of the Pocket Edition.

Variety HH-2

Same as Variety HH-1 except for:

1 is written in ink over the 0 in the 1870 copyright date so as to make the date 1871.

* * TYPE 11-P * *

Eleventh edition on title page;

Pocket size;

1873 copyright date;

BUBLISHED is misspelled on the title page;

29 pages of regular text and 10 pages of recommendations and advertising with an additional blank page;

A descriptive pamphlet of United States Currency is advertised for the first time in a Pocket edition.

Variety 11-P-1

There are two plates of fractional currency, plates numbered 2 through 10 and a second but different plate numbered 7;

Page 13 refers to a plate 11 but there is none and the second plate 7 is intended to be plate 11;

The magnifying glass text is not illustrated.

Variety 11-P-2

Same as Variety 11-P-1 except for:

A new plate numbered 11 is present as a substitute for the second plate 7 of Variety 11-P-1.

* * TYPE 12-P * *

Twelfth edition on typeset title page;

Pocket size;

1877 copyright date;

REVISED has been added above the last line of the gold lettering on the front cover;

Printed by the PRESS OF ROCKWELL AND CHURCHILL, 39 ARCH STREET, BOSTON;

Elaborate engraved title page with 11 different styles of lettering is in front of the typeset title page;

A complete revision of the text;

Advertisement of the American Bond Detector eliminated;

Variety 12-P-1

1877 date on typeset title page;

6 chapters on 35 pages followed by 14 pages of advertising and recommendatins;

There are 7 numbered plates containing the right half of the faces of United States Notes and National Bank Notes up through the \$100 denominations printed from transfer dies made by the Bureau of Engraving and Printing from original plates with a thick black line from the lower left to the upper right across the notes on the first three plates and from the upper left to the lower right across the notes on the last four plates, the printed signatures of A.U. Wyman, John C. New and John Allison appear on some notes;

Chapter VI has a description of the illustrated notes;
A new single illustration of the microscope glass is surrounded by the text.

Variety 12-P-2

Same as Variety 12-P-1 except for:
There has been added 7 pages of "Hints" by George W. Casilear of the United States Treasury Department, on the detection of counterfeits;
There has been added a Chapter VII describing National Bank Note backs;
There are 47 pages of text followed by 14 pages of advertising and recommendations;
There have been added 3 plates of the right halves of the backs of genuine National Bank Notes (except the \$1) with a thick horizontal line across the middle of the backs.

Variety 12-P-3

Same as Variety 12-P-2 except for:
The date on the typeset title page has been changed to 1878;
2 illustrations of a compound microscope patented December 15, 1877 and new text replace prior magnifying glass advertising.

*** * TYPE 13-P * ***

Thirteenth edition printed on typeset title page but Introduction relates to the twelfth edition;
Pocket size;
1877 copyright date.

Variety 13-P-1

1881 on typeset title page;
WRIGHT AND POTTER PRINTING COMPANY, 18 POST OFFICE SQUARE, BOSTON is named;
Minor text changes from TYPE 12-P.

*** * TYPE 14-P * ***

Fourteenth edition printed on typeset title page but Introduction relates to twelfth edition;
Pocket size;
1877 copyright date.

Variety 14-P-1

1883 date on typeset title page;
Printer same as Variety 13-P-1.

*** * TYPE 15-P * ***

Fifteenth edition printed on typeset title page but Introduction relates to twelfth edition;
Pocket size;
1877 copyright date.

Variety 15-P-1

1887 date on typeset title page;
Printer same as Variety 13-P-1.

Variety 15-P-2

Same as Variety 15-P-1 except for:
1889 date on typeset title page.

*** * TYPE 2-BH * ***

Second edition according to a statement in the Introduction, there being no first edition of this size;
Banking House size;
BANKING HOUSE AND COUNTING ROOM EDITION on title page;
BANKING & COUNTING HOUSE EDITION stamped on front cover as part of 6 or 7 line typeset lettering or as part of 8 line ornamental lettering;
Cover contains either correct July 2, 1867 patent date or incorrect July 12, 1867 patent date or no patent date;
AT SIGHT in typeset lettering on cover is either the same size or shorter than letters on the line above;
1866 copyright date alone, or both 1866 and 1867 copyright dates;
Engraved frontispiece;
Engraved September 3, 1866 letter from Treasury Department authorizing use of illustrations;
Introduction to First Edition is materially modified;
Fractional currency plate has Alexander Hamilton's head and 50 in addition to 5 pieces of fractional currency, with counterfeit 50 cent below genuine 50 cent illustration;
Only Federal subjects used on the 11 regular plates;
11 sections of text and 5 pages of recommendations and publicity.
(The order of preparation of TYPE 2-BH is uncertain.)

Variety 2-BH-1

1866 copyright date;
PRATT BROTHERS, ENGRAVERS AND PRINTERS, 37½ CORNHILL, BOSTON;
Impressions from transfer plates made from captured counterfeit plates being \$100 First National Bank of Boston, \$20 Fourth National Bank of New York, \$10 First National Bank of Philadelphia, \$10 U.S. Note, and \$50 U.S. Note, plus 50 cent counterfeit Fractional Currency as part of Fractional Currency plate;
Newly prepared engraved Laban Heath bank note style business card similar to card used in first Pocket edition, but with text increased and counters modified and with PLATE 15 engraved on the plate and a hole punched through 15 on the card.
Magnifying glass text refers to illustrations which are not present because of delay or shortage.

Variety 2-BH-2

Same as Variety 2-BH-1 except for:
No stereotyper or printer named;
Engraved Laban Heath bank note style business card same as in Variety 2-BH-1 except that PLATE 15 is not engraved on the card and no hole is punched through the card.

Variety 2-BH-3

Same as Variety 2-BH-1 except for:
Both 1866 and 1867 copyright dates;
INNES AND NILES, STEREOTYPERS AND PRINTERS, 37 CORNHILL, BOSTON are named;
Impressions from transfer plates made from captured counterfeit plates limited to \$100 Boston (Plate 12) and counterfeit 50 cent on Fractional Currency plate;
2 pages of illustrations of magnifying glasses are present at end of book;
Sometimes an insert about Charles Ulrich is pasted onto Plate 12.

Variety 2-BH-4

Same as Variety 2-BH-3 except for:
Impressions from transfer plates made from captured counterfeit plates, being \$100 First National Bank of Boston, \$20 Fourth National Bank of New York, and \$10 First National Bank of Philadelphia, plus 50 cent counterfeit Fractional Currency as part of Fractional Currency plate;
No Ulrich paste-in.

* * TYPE 3-BH * *

Third edition in Introduction only;
Banking House size;
BANKING HOUSE AND COUNTING ROOM EDITION on title page;
1870 copyright date with filing with Librarian of Congress instead of with Clerk of Massachusetts District Court;
Ornamental cover with folded gold ribbon and 8 styles of gold lettering with incorrect July 12, 1867 patent date;
Publisher and copyrighter changed to LABAN HEATH & CO.;
No stereotyper or printer named;
Heath address changed from 20 WASHINGTON STREET to 30 HANOVER STREET;
TEACHER OF COUNTERFEIT DETECTION eliminated from title page;
Most plates moved to back of book instead of being interspersed;
Table of contents instead of numbered sections;
39 pages of text (including 1 page of microscope illustrations) before recommendations and advertising;
First advertising in Banking House edition of *The American Bond Detector*;
On page 35 the word PRECEEDING is improperly used as to placement of counterfeit plate impressions which follow page 35.

Variety 3-BH-1

List of Illustrations has 16 entries;
Plates are Frontispiece, Treasury Letter, Heath card without plate number, Fraction Currency, 2

through 11, \$100 Boston, \$20 New York, \$10 Philadelphia, \$50 U.S. Note and \$10 U.S. Note, but order of last two plates differs from List of Illustrations and page 35;

8 pages of recommendations and advertising with American Bond Detector advertising split into two separated segments.

Variety 3-BH-2

Same as Variety 3-BH-1 except for:
There are 2 different plates numbered 4 and no plate numbered 5;
Recommendations and advertising reduced to 5 pages;
Two half page inserts describe newly captured unfinished National Currency counterfeit plates (\$20 New York and \$10 Chicago), impressions of which are substituted for those denominations of National Currency previously used.

Variety 3-BH-3

Same as Variety 3-BH-2 except for:
Impressions of counterfeit \$100 U.S. Note and counterfeit \$5 U.S. Note are substituted for counterfeit \$50 U.S. Note and counterfeit \$10 U.S. Note, but List of Illustrations is not revised to conform;
Special inserts describing newly captured plates eliminated.

Variety 3-BH-4

Same as Variety 3-BH-3 except for:
The impression of the \$100 Boston counterfeit is not present and is eliminated both in the List of Illustrations and on page 35;
The impressions of counterfeit U.S. Notes are \$5 followed by \$100 while the List of Illustrations calls for \$10 followed by \$100 and page 35 calls for \$100 followed by \$5, each contradicting the other.

Variety 3-BH-5

Same as Variety 3-BH-4 except for:
In the List of Illustrations plate numbers XIV and XV are eliminated at the end of the lines describing the counterfeits and the description of the counterfeit \$5 U.S. Note has an ink line drawn through it;
Pages 35 and 36 have been modified to cover only 3 impressions from counterfeit plates, but only 2 impressions (\$100 U.S. Note and \$20 New York incomplete) are present, this conforming to the List of Illustrations except for order of insertion in the book;
The second plate 4 has a 5 written in ink over the 4.

Variety 3-BH-6

Same as Variety 3-BH-5 except for:
No impressions from counterfeit plates are present

except the \$100 U.S. Note and the 50 cent Fractional Currency;
Pages 35 and 36 are omitted because of lack of availability of sufficient impressions from counterfeit plates;
List of Illustrations replete with errors.

* * TYPE 4-BH * *

Fourth Edition in the Introduction;
Banking House size;
1873 copyright date;
Treasury Department letter eliminated.

Variety 4-BH-1

11 plates as shown in List of Contents, but two plates in that List are numbered VII;
2 different plates are numbered 4.

* * TYPE 12-BH * *

Twelfth Edition on typeset title page and in Introduction;
Banking House size;
1877 copyright date;
PRESS OF ROCKWELL AND CHURCHILL, 39 ARCH ST., BOSTON is named;
REVISED added to gold leaf lettering on cover;
Elaborate engraved title page with 12 different styles of lettering precedes typeset title;
Entire text rewritten.

Variety 12-BH-1

6 chapters;
32 pages of text followed by 8 pages of advertising and recommendations;
9 numbered plates of left 60 percent of faces of U.S. Notes and National Bank Notes with thick black line from upper left running down to right 30 degrees from horizontal on \$1 and from lower left upward to right 60 degrees from horizontal on other denominations.

Variety 12-BH-2

Same as 12-BH-1 except for:
George W. Casilear "Hints" added to the Introduction;
7 chapters, the last describing the backs of National Bank Notes;
41 pages of text followed by 8 pages of advertising and recommendations;
Plates 10 and 11 added with alternate left and right halves of backs of all National Bank Notes except the \$1, with a thick black line drawn horizontally across the middle of the backs;
Black and green print on plates 10 and 11.

* * TYPE 13-BH * *

Thirteenth Edition on typeset title page and in Introduction;

Banking House size;
1877 copyright date;
UNITED STATES TREASURY NATIONAL BANK NOTE DETECTOR on cover in 5 lines of gold letters;
Casilear "Hints" included;
41 pages of text plus 8 pages of advertising and recommendations;
11 plates of U.S. Notes and National Bank Notes as in Variety 12-BH-2;
2 pages of microscope illustrations;
No printer named.

Variety 13-BH-1

1879 on typeset title page.

Variety 13-BH-2

Same as Variety 13-BH-1 except for:
1880 on typeset title page.

Variety 13-BH-3

Same as Variety 13-BH-1 except for:
1887 on typeset title page.

Acknowledgements

Past numismatic writers have not neglected writing about Heath's detectors.¹³ They have even printed the full text of a Banking House edition and of a Pocket edition.¹⁴ Numismatic book auction catalogs have often well described the detail on the Heath items being sold, but had no study to guide them. This article has had the advantage of obtaining from the National Archives of the United States the remaining records as to the government's relationship with Heath, and those records have shed substantial light on the subject.³

However, the author has received cooperation from many other numismatists, particularly Robert J. Wester in gathering data over many years, and Harry Bass, John F. Bergman, Erwin E. Brauer, Hy Brown, Armand Champa, Harry Forman, Ralph Goldstone (deceased), Don Gorlick, Gene Hessler, Kenneth L. Hallenbeck, Michael Hodder, Ronald Horstmann, Glenn E. Jackson (deceased), Helen Jekel, D. Wayne Johnson, Frank Katzen, George Kolbe, Joseph R. Lasser, Kenneth Lowe, George Nicholson, Neil Shafer, William Sherman, Lawrence R. Stack, Norman Stack, Jack M. Vorhies, George Wait, and Cal Wilson.

Institutions whose services are appreciated include American Antiquarian Society, American Numismatic Society, Boston Public Library, Harvard University, Library of Congress, Maine Historical Society, National Archives of the United States, and Eric P. Newman Numismatic Education Society.

FOOTNOTES

1. The complete text of the Whittemore-Gear pamphlet was reprinted by Jack Vorhies as "A Forerunner of the Laban Heath Counterfeit Detectors," *The Essay Proof Journal*, Vol. 41, No. 1 (1984), pp. 166-173; Vol. 42, No. 1 (1985), pp. 6-13; Vol. 42, No. 2 (1985), pp. 67-71; Vol. 42, No. 3 (1985), pp. 99-100.
2. George M. Peyton's book has been reprinted in *The Essay Proof Journal* beginning in Vol. 46, No. 4 (1989), p. 160.
3. Archives of the United States, Record Group 318, Records of the Bureau of Engraving and Printing, Letters Sent and Letters Received; Record Group 53, Records of the Bureau of Public Debt.
4. Steve Schroeder, "Governor Ordway and the Great Dakota Train Robbery," *Paper Money*, Vol. XXVIII, No. 2 (March 1989), p. 43.
5. U.S. Patent Office, Annual Report of the Commissioner of Patents for the Year 1867, Vol. 2, p. 941; Vol. 3, p. 654.
6. *History of the Bureau of Engraving and Printing 1862-1962* (Washington 1962), p. 24.
7. p. 20 in all first Pocket editions; p. 24 in all second Pocket editions p. 24 or p. 20 in all third Pocket editions; p. 20 in the fourth, tenth and eleventh Pocket editions; p. 22 in all second Banking House editions; p. 21 in all third and fourth Banking House editions; and p. 14 of the Household Edition.
8. Eric P. Newman, "As Phony as Three Dollar Bill," *The Numismatist*, Vol. 87, No. 8 (August 1974), pp. 1507-1516.
9. Spencer Morton Clark, *Report of the Secretary of the Treasury from the First Division National Currency Bureau* (Washington 1864).
10. See: Julian Blanchard, "The American Bond Detector," *The Essay Proof Journal*, Vol. 12, No. 3 (1955), pp. 115-119.
11. Kirby W. Brown, "The Origin of the Coin Plates in the American Bond Detector," *The Asylum*, Vol. II, No. 1 (1982), pp. 9-10.
12. John J. Ford, Jr., interview, *The Asylum*, Vol. I, Nos. 2 & 3 (1980), p. 23.
13. Glenn E. Jackson presented some background of Heath's publications in *The Essay Proof Journal*, to which he added detail described in footnote 14. Illustrations of portions of counterfeit U.S. Notes and National Bank Notes taken from Heath detectors are in William P. Koster, "Counterfeiting of Early U.S. Legal Tender Notes and Fractional Currency," *Paper Money*, Vol. 11, No. 2 (1972), pp. 58-60; Vol. 11, No. 3 (1972), pp. 121-128; Vol. 11, No. 4 (1972), pp. 177-182.
"Erratas (sic) and Such," *The Asylum*, Vol. II, No. 2 (1983), p. 28.
14. Heath Variety 1-P-17 was reprinted in *The Essay Proof Journal*, Vol. 38, No. 4 (1981), pp. 155-159 and Vol. 39, No. 1 (1982), pp. 3-20.
Heath Type 2-BH was reprinted in *The Essay Proof Journal*, Vol. 39, No. 2 (1982), pp. 59-79.
Heath publications copyrighted in 1877 were partially reprinted with composite impressions of genuine notes in *The Essay Proof Journal*, Vol. 39, No. 4 (1982), pp. 173-179 and Vol. 40, No. 1 (1983), pp. 16-23.
Impressions from all captured counterfeit plates used in Heath publications except the \$20 Fourth National Bank of the City of New York were reprinted in *The Essay Proof Journal*, Vol. 40, No. 3 (1983), pp. 125-132. The omitted counterfeit impression is included as an illustration in the present publication.

The American Numismatic Association CENTENNIAL ANTHOLOGY

Edited by
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and
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